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AN EXPERIMENTAL APPROACH TO TEACHING VOCABULARY THROUGH SUGGESTOPEDIA/RESERVOPEDIA

In Partial Fulfillment of the Requirements for the Degree of
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By

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This thesis is titled as **An Experimental Approach to Teaching Vocabulary Through Suggestopedia/Reservopedia** and presented by Seçil TÜRKÖZ has been approved as a thesis of Master of Arts in English Language Teaching.

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ABSTRACT

AN EXPERIMENTAL APPROACH TO TEACHING VOCABULARY THROUGH SUGGESTOPEDIA/RESERVOPEDIA

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This study investigates the development of vocabulary by means of one of the least investigated methods to language teaching, Suggestopedia/Reservopedia. To that end, the researcher, under the light of her training by the developer of the method Georgi Lozanov, adapted the authorized coursebook used in the department to the method and modified the teaching according to the laws, principles and means of Suggestopedia/Reservopedia.

The data were collected from a sample of 45 Turkish students who were attending the preparatory classes at the Abant İzzet Baysal University (AİBU) in Bolu, Türkiye, in the Fall semester of the 2008-2009 academic year. The participants were between the ages of 17-20 learning English as a foreign language at elementary level. To investigate the effects of Suggestopedia/Reservopedia on students' vocabulary achievement, two groups were randomly formed: one was the experimental group which would learn vocabulary using Suggestopedia/Reservopedia, the other would be the control group which would be subjected to vocabulary teaching in the non-Suggestopedic/Reservopedic way.

In the selection of the vocabulary items to be taught, one criterion that was followed was determining the words students would learn. In order to maximize the benefit for both groups, three word count studies were consulted. They were Academic Word List, General Word List, and University Word List. Thus, the majority of the words were chosen on the basis of those lists. Considering that students would be tested

on the vocabulary items in their book, the vocabulary words not included in those lists, but included in the coursebook were also included in vocabulary teaching.

Statistical analyses revealed that the students in the experimental group significantly outperformed those in the control group in the vocabulary tests. With regard to long-term retention of the vocabulary words, the results also pointed out that Suggestopedic/Reservopedic students were able to remember them better compared to the control group.

Thus, it was concluded that Suggestopedic vocabulary teaching had a significant effect on vocabulary learning.

Key words: Suggestopedia/Reservopedia, long term memory, retention, experimental group, control group

ÖZ

SUGGESTOPEDIA/RESERVOPEDIA METODUYLA KELİME ÖĞRETİMİ ÜZERİNE DENEYSEL BİR ÇALIŞMA

Türköz, Seçil
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Bu çalışmada dil öğretim metodları arasında en az araştırılmış yöntemlerden biri olan Suggestopedia/Reservopedia kullanılarak, metodun öğrencilerin kelime öğrenimi üzerindeki etkileri araştırılmıştır. Araştırmacı, metodu geliştiren Dr. Lozanov'dan aldığı eğitimin ışığı altında, hazırlık sınıflarında okutulan ders kitabını, metoda uyarlayarak, öğretimde metodun kural, ilke, ve araçları doğrultusunda değişiklikler yapmıştır.

Çalışmaya 2008-2009 öğretim yılı güz döneminde Abant İzzet Baysal Üniversitesi (AİBU) hazırlık sınıflarında okuyan 45 öğrenci katılmıştır. Metodun öğrencilerin kelime düzeyleri üzerindeki etkisini ölçmek için biri deney diğeri kontrol grubu olmak üzere rassal olarak iki grup seçilmiştir. Deney grubuna kelimeler Suggestopedia/Reservopedia yöntemiyle öğretilmiştir. Kontrol grubuna ise böyle bir yöntemle öğretilmemiştir. Veri toplamak için ön-test ve son-test yöntemleri uygulanmıştır.

Öğretilecek kelimelerin seçimindeki kriterlerden biri de öğrencilerin öğrenecekleri kelimeleri belirlemekti. İki grup için de yararı en üst düzeye çıkarmak için üç kelime listesi kullanılmış, kelimelerin birçoğu bu listelere dayanılarak seçilmiştir. Öğrencilerin ders kitabındaki kelimelerden de değerlendirileceği göz önünde bulundurularak, bu kelime listelerinde bulunmayan ancak öğrenci kitabında bulunan kelimeler de öğretime dahil edilmiştir.

Testlerin sonucu deney grubuna uygulanan yöntemin gruplar arası farkını ortaya koymuştur. Deney grubunun, kontrol grubundan daha başarılı olduğu ve iki grup

arasında belirgin farklılıkların olduğu gözlemlenmiştir. Bulgular ayrıca deney grubu öğrencilerinin öğretilen kelimeleri daha iyi hatırladıkları sonucunu ortaya çıkarmıştır.

Bu çalışmanın bulguları kelime öğretiminde Suggestopedia/Reservopedia yönteminin güçlü bir etkisi olduğunu göstermektedir.

Anahtar kelimeler: Suggestopedia/Reservopedia, uzun süreli bellek, hatırlama, deney grubu, kontrol grubu.

To Professor Dr. Georgi Lozanov

with gratitude…

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I: INTRODUCTION

1.1. Theoretical Background

1.1.1. Importance of Vocabulary in Language Teaching

Human beings have been learning foreign languages for many centuries. In order to find the most effective way to teach foreign languages, different methods or approaches have been proposed throughout the history of language learning and teaching. Each method or approach has tended to place particular emphasis on one aspect of language. Given that, language teaching methodology has traditionally oscillated between two approaches: one that focuses on the structure of language (grammar) and the other that focuses on using language.

For a considerable period of time in the past, the main focus of language teaching was grammar instruction. It was assumed that grammar was a system of specific rules that enabled people to create sentences in order to express their ideas, and if communication was possible, it was mainly because of their knowledge of grammar rules and patterns. Palmer (1984) explains the underlying importance given to grammar eloquently:

> Man is not well defined as ***homo sapiens*** ('man with wisdom'). For what do we mean by wisdom? More recently anthropologists have talked about 'man the tool-maker', but apes too can make primitive tools. What sets man apart from the rest of the animal kingdom is his ability to speak; he is 'man the speaking-animal ***homo loquens***. But it is grammar that makes language so essentially a human characteristic. For though other creatures can make meaningful sounds, the link between sound and meaning is for them of a far more primitive kind than it is for man, and the link for man is grammar. Man is not merely ***homo loquens***; he is ***homo grammaticus***. (pp.9-10)

It is true that grammar has this capacity; with rules one can produce an infinite number of sentences. Over the years, however, it became increasingly clear to both practitioners and theoreticians that grammar, by itself, was far from being "the" means that would provide learners with the envisioned language competence. One outcome of the search to improve the existing "more knowledge of grammar means becoming better

at all language skills" perspective was the incorporation of other components of language - one of which was vocabulary - into language teaching. The result of the search for effective teaching alternatives indicates that grammar still continues to be an essential component in language teaching although it no longer is "the" component to be taught alone since no grammatical structure is able to express meaning without "words" in it.

Vocabulary has a powerful role and effect on language learning. People express themselves easily when they know the words that they actually need in their lives. This ease of expression leads to motivation to continue to learn the language. Content words are particularly so powerful as tools of expression that sometimes uttering these words themselves instead of grammatically correct utterances or sentences is enough to get one's meaning across. Drawing on research findings, Ellis (1994) argues that "lexical errors receive more attention than phonological or grammatical errors" (p.585).

It is clear that increased vocabulary contributes to the development of both receptive and productive skills in language learners. Students whose language learning experience does not include an emphasis on vocabulary often fail to verbalize their feelings and ideas and may even perceive themselves incapable of achieving a task which they naturally consider difficult. Along with this idea, Nation (1990) states that "learners feel that many of their difficulties in both receptive and productive language use may result from an inadequate vocabulary" (p.2). Moreover, the job of learning new words in a given time is a formidable task for learners. It often causes learners to become demotivated as they see no end to it.

Two developments may account for why the traditional prominence of grammar was questioned and why the importance of the role that vocabulary plays in language learning has been recognized. First, a shift of focus took place in the field of language teaching which culminated in the inception of communicative language teaching, the main teaching aim of which is to assist learners to become proficient in communication. With the emphasis on communication, the role that vocabulary plays has become very important since grammar alone cannot convey meaning without words in it. Second, the recently emerged lexical approaches, which incorporate corpus studies

into language teaching thanks to the rapid advances in computer technology, have also emphasized the significance of vocabulary as a key to communication.

1.1.2. The Communicative Approach and Its Influence

Having used grammar based methodologies, language teachers realized that students could translate complex literary texts and do mechanical drills; however, they were unable to express themselves even in the basic everyday conversation in the target language. The 1970s witnessed the emergence of the communicative approach to language teaching in which language began to be seen as a tool for communication, not just the object of study. The shift from "teaching about the language" to "the actual functional use of language" formed the gist of this transformation.

From a functional point of view, the role of language was to communicate meanings, and the best possible way to do that seemed to be through words. McCarthy and Carter (1997) state that "spoken language offers us a coign of vantage from which to view vocabulary as a communicative resource, rather than as a lifeless and forbidding list of items that just have to be learned" (p.39). In Wilkins' *Notional Syllabuses* (1976) the communicative functions of language such as apologizing, greeting, inviting, promising, asking for things were emphasized over the mastery of structures. The aim was to enable learners to acquire language by communicating. In order to develop learners' communicative competence, communicative activities that would maximize communication were introduced in contexts which were meaningful to students, relevant to their interests and needs, and engaged them in real-life communication. Generally speaking, however, in these activities accuracy of the language produced by students was not considered a priority. Success was defined as students' being able to express themselves fluently in the target language. In other words, accuracy was sacrificed at the expense of fluency which was achieved mainly through the use of vocabulary words. Even though sentences may lack grammaticality, the content words uttered in the context enabled learners to convey their messages. In other words, vocabulary, specifically, content words, uttered in the presence of the listener allowed learners to convey their meanings.

The fact that vocabulary could supply a great deal of communication without much support from other components of language resulted in vocabulary's gaining

prominence as an important aspect of language. As McCarthy (1990) states "no matter how well the student learns grammar, no matter how successfully the sounds of L2 are mastered, without words to express a wide range of meanings, communication in an L2 just cannot happen in any meaningful way" (p. VIII).

It became undeniably obvious that having perfect command of grammar rules did not lead learners to convey their intended meaning/s. It also became undeniably obvious that one's ability to communicate increased significantly, provided that they knew more vocabulary. This new idea has received support from various linguistic scholars. Richards and Rodgers (2001) note that even "Chomsky, the father of contemporary studies in syntax, has recently adopted a 'lexicon-is prime' in his Minimalist Language Theory" (p.132).

With the recognition of the meaning making potential of words, vocabulary has become a learning objective in its own right in language teaching. Rivers (1981) states that:

> It would be impossible to learn a language without vocabulary, without words. One could learn about a language through some symbol system which would demonstrate relations and how they are realized, but this would be like examining the skeletal remains of a dinosaur and believing that one had actually encountered the creature. Language is not dry bones. It is a living, growing entity, clothed in the flesh of words. (p.462)

To sum up, although communicative language teaching made the learning process a more satisfying and motivating one for learners, it seemed to have two flaws that deserve to be mentioned here. First, it focused mainly on the appropriate use of the communicative functions of language. The same systematic attention was not paid to vocabulary teaching. O'Dell (1997) reports that the syllabus designers of this period assumed that vocabulary was a rather haphazard process that could be acquired naturally. Instead of vocabulary, they put more emphasis on structures, functions, notions, and communication.

Second, as a result of the first flaw, communicative language teaching produced learners whose production was fluent, yet inaccurate. Now, it is thought that such an unbalanced approach to language teaching may give rise to fossilization in learners' language skills. Today, in current language teaching theory, a balanced focus

on form and accuracy as well as meaning and fluency is highly desirable. Therefore, current practice should emphasize the significance of a principled selection of vocabulary words according to carefully created word frequency lists and a systematic approach based on meaningful involvement with words through recycling.

1.1.3. Corpus Linguistics and Its Influence

Besides the recognition of meaning making potential of vocabulary in the communicative approach, towards the second half of the 1980s, lexis began to receive the direct attention of researchers. One reason for this interest in lexis can be put down to the developments in computer based studies of language, that is, corpus linguistics. The advances in technology facilitated analyzing large banks of language data stored via computers. The development of computer databases, containing millions of words in context, as well as concordancing programs provided ease for researchers to do frequency count studies and to identify patterns in languages. Through these large-scale computer databases of language corpora, language professionals examined the regular, patterned preferences of native speakers in various kinds of texts, including spoken samples. These studies revealed striking insights into how words tend to associate with other words, becoming multi-word expressions, in the form of chunks, fixed expressions, and collocations over the course of thousands of examples. Corpora studies have also revealed that repeated multi-word expressions form a significant part in much of our spoken and written output in addition to single words. “Language is available for use in ready-made chunks to a far greater extent than could ever be accommodated by a theory of language which rested upon the primacy of syntax, as the transformational-generative tradition did” (O’Keeffe, McCarthy & Carter, 2007, p.60). In other words, corpora studies led to the tendency among language professionals that lexis also formed part of the basis for the organization and patterning of language. They demonstrated how a given word was used grammatically as well. O’Keeffe et al. (2007) point out that “developments in corpus linguistics have convinced many linguists that vocabulary is much more important than what Chomsky called the unordered list of all lexical formatives” (p.6).

The results of corpus studies presented additional, yet important insights about the role of grammar and the way grammar was defined. One of the most striking

outcomes of the research was the realization that grammar and vocabulary were interrelated and that grammar was constrained by lexical choices. Stemming from these findings, the clear cut division between grammar and vocabulary has blurred. “Rather, one must conceptualize them as partners in synergy with no discrete boundary, sometimes referred to as lexicogrammar” (Schmitt, 2000, p.14). Based on this idea, today it is assumed that a second language cannot be acquired without both areas being covered. Other finding emerging from the studies was the tendency of native speakers to use much of the same language over and over again instead of reorganizing them every time they were used. Current thinking, largely drawing from the studies of corpora, corroborates the belief that vocabulary is mainly composed of fixed expressions.

The results of the studies of corpora led to the emergence of two important approaches: the Lexical Approach and Data Driven Learning (DDL). The lexical approach requires storing a great amount of words in order to acquire fluency. “We select from this vast phrase book the chunks we need, and then fine-tune for grammar” (Thornbury, 2002, pp.114-115). However, the Lexical Approach is not without limitations. As Harmer (2001) announces “in the first place, no one has yet explained how the learning of fixed and semi-fixed phrases can be incorporated into the understanding of a language system” (p.92). Another problem is that the order in which such phrases should be taught is not clearly defined. Finally, if exposure to adequate meaningful input is necessary to enhance learners’ vocabulary, no satisfactory information is available regarding what kind of input should be taught. Schmitt (2000) notes that “at this point neither Lewis’ nor Nattinger and DeCarrico’s pedagogical ideas have been empirically tested for effectiveness in the classroom” (p.112).

DDL, on the other hand, is an approach to language learning in which learners are provided with direct access to the authentic language samples through software programs called concordancers. Although DDL makes contributions to the development of vocabulary skills, there are several limitations to the approach. First, due to budget constraints, many schools cannot afford to purchase the software or equipment needed for such an approach. Second, teachers may not have enough time to scan hundreds of pages in the program. Third, the major argument against the use of DDL approach is that its difficulty for beginner students (Hadley, 2002).

The current developments mentioned above appear to have shortcomings. Therefore, a practical and effective approach to teaching vocabulary is necessary.

1.1.4. Rationale for Choosing Suggestopedia as a Method of Investigation in this Study

Despite the fact that most methods put emphasis on the importance of vocabulary to some extent, no method explicitly mentions how vocabulary development will proceed creatively and quickly in the course of language learning and teaching. A literature survey of teaching methods to identify which method/s teach/es vocabulary with the intention of producing effective results would indicate Suggestopedia as the most noteworthy candidate. Suggestopedia, recently renamed as Reservopedia by its inventor Georgi Lozanov, claims for superior results than other methods.

This stems from the difference of Suggestopedia from other methods. First, based on the belief in the immense capacity of man, in Suggestopedia it is assumed that human beings have hidden, unused potential that needs to be tapped. Once the suitable conditions are created, the reserve complex of the mind is thought to be revealed. For this reason, the method attaches great sensitivity to affective and humanistic elements. The method creates a teaching and learning atmosphere in which the process of desuggestion-suggestion is of utmost importance. This process is based on the idea that once students' prior negative beliefs about their potential and learning are desuggested, or removed, at the conscious and subconscious levels, their learning potential can improve considerably.

When the barriers to learning are eliminated to create a joyful and positive learning environment, the learning through the method can produce positive therapeutic effects on students. That is to say, the improvement of students' performance may affect their mental states favorably. Once they become relaxed in such an environment where their level of anxiety, fears, inhibitions and stress diminish, they become more inclined to language acquisition. This idea could be compared to Krashen's "affective filter hypothesis" claiming that when learners "have a high or strong affective filter even if they understand the message, the input will not reach that part of the brain responsible for language acquisition, or the language acquisition device" (Krashen, 1987, p.31).

Second, when students are taught according to their learning style/s, they learn better. Suggestopedia/Reservopedia recognizes this fact and employs music, drama, and peripherals to appeal to auditory, visual, and kinesthetic learning styles. This makes Suggestopedia/Reservopedia a method for learners with different learning styles.

Third, Suggestopedia/Reservopedia is based on the premise that learning takes place in the human's brain. Therefore, the whole brain of the individual learners must be stimulated. In other words, not only the left brain, but also the right brain is simultaneously activated in the method. The demand on teachers is to adjust teaching practice according to the functioning of the brain. Lozanov (2009) states that "instead of bearing in mind the way the brain functions, teachers often seem to want to teach the brain how to function" (p.137). As a result of the synchronization of emotional and rational thinking, the right state of the mind of each student can be found more easily. When the human mind is in right state, it is assumed that its capacity for assimilation and retention of the material increases to the fullest.

Fourth, in most teaching practice, parts are separately taught in isolation before students take a picture of the meaningful global, or in some cases the whole is taught without paying attention to the components. The possible limitations of the partial and holistic approaches are eliminated through a balanced approach to the parts and the whole in this method. In Suggestopedia/Reservopedia, it is maintained that one way approach toward left-brain learning results in a tremendous amount of information loss, therefore, a reduction in the potential of learners. For this reason, the manner of presentation of material is compatible with the operations of the brain. Along with this idea, Lozanov (2009) states that "teaching within the framework of Reservopedia is dialectical in essence and performance, being at the same time directed to the meaning of global entities as well as to their inherent or constitutional details" (p.207).

Fifth, unlike other methods, Suggestopedia/Reservopedia operates simultaneously on two levels of human mind: conscious and subconscious. It is believed that the unity of these functions accelerates the acquisition of materials to be taught. However, in the usual teaching practice, the role played by the subconscious mind is often underestimated. According to Krashen (1987), adults have two different ways of developing competence in a second language: acquisition and learning. Krashen contends that acquisition is subconscious, involves learning without awareness

(implicit) and contributes to fluency, whereas learning is conscious (explicit), involves knowing rules of the language, and it functions as a monitor, editor. The dichotomy between implicit and explicit instruction is one of the most debatable questions in language teaching profession. In Suggestopedia/Reservopedia, these approaches are balanced in such a way in which implicit learning (acquisition) is put at the core of the teaching practice and explicit teaching (learning) is peripheral and it is resorted in order to facilitate output. As Krashen (1987) elucidates, "the use of the conscious grammar can fill in many of the non-acquired items" (p.90).

Finally, despite the fact that researchers hold different points of view, there appears to be a general agreement that children are better learners compared to adults. One proponent of this idea is Lenneberg (1967) who in his "critical age hypothesis" maintains that after puberty automatic acquisition of a second language becomes difficult due to the completion of the hemispheric lateralization at the puberty, therefore, he argues that "foreign languages have to be taught and learned through a conscious and labored effort" (p.176). When we take into account how children learn a language, we can detect similarities between the way children acquire languages and conditions created by the Suggestopedic/Reservopedic system. By means of "infantilization, for example, adult learners return to their childlike (not childish) state and become more receptive to the language acquisition in the entire process.

All these general features of Suggestopedia activate learners' potential to learn, and thus enable them to remember a huge amount of information, including vocabulary, in a short span of time even without the burden of homework. This is particularly important because despite the importance of vocabulary in communication, today, in most classes the burden of learning vocabulary causes students to become discouraged as they see no end to the process and easily forget the words that they have learnt. Suggestopedia, on the other hand, attempts to remove obstacles getting in the way of student's communication by teaching a sizeable amount of vocabulary from the very beginning (800-1000 words).

Regarding vocabulary learning, the superiority of Suggestopedia lies in its ability to help students retain new information at significantly higher rates than any other method. According to Stevick (1996), Lozanov's work is directly related to a discussion of memory "because his method is supposed to produce what his translators

have called hypermnesia, students were reported to learn hundreds of words at a session, with little or no forgetting over long periods of time" (p.135). Erdelyi (1996) defines hypermnesia as "overall recall improvement from an earlier trial to a later trial" (p.15). Provided little or no forgetting occurs over time, this may be interpreted as the emergence of new memory laws through Suggestopedia/Reservopedia.

The superiority of Suggestopedia lies in a few more points. In order to attain the desirable outcomes in learning a foreign language, learners need not only to learn a lot of words, but also to remember them. In fact, learning is remembering, which is essentially a matter of memory. For words to be integrated into memory, they need to undergo various types of operations. In order to retain material in memory, a number of memory techniques such as elaboration and meaningful organization need to be followed. The point is that those principles are applied in Suggestopedia/Reservopedia. Hence, Suggestopedia appears to be a powerful candidate to enhance creative, rapid and effective vocabulary learning and teaching.

Furthermore, we live in an age of information in which we are bombarded with a vast amount of information at an exponential rate. In such an age, what we need most is rapid learning of that information in order not to fall behind the age. As Baddeley (2009) states, "many very successful species such as ants, crocodiles, viruses and butterflies come into the world preprogrammed with the equipment to survive. Humans, however, are a species that can only survive by learning" (p.69). Therefore, increasing the learning capacity is vital for the survival of the individual and the society. One of the problems facing us today is to learn a vast amount of information in a short span of time. "Today, standing before the might of technology - the scientific discoveries and information - we ask ourselves how to master all this in a short time without tension and at the same time avoid the temptation to develop an encyclopedic mind" (Gateva, 1991, p.17). Suggestopedia/Reservopedia may be a very powerful candidate to satisfy this expectation.

Finally, but equally importantly, although all methods make assumptions about ways of learning and teaching. As Stern (1983) notes "while these assumptions appear plausible in principle, they have not been tested critically and systematically against the realities of actual learning" (p.473). In other words, no method has ever been put to test to see how effective the ways of learning it recommends are. In contrast to other

methods, the results of experiments and continuous research provided evidence for the reliability of Suggestopedia/Reservopedia. It is the only language teaching method certified by a respected organization, that is, UNESCO as a highly effective teaching method.

1.2. The State of Vocabulary Teaching in Higher Education in Türkiye

In Türkiye, English is the most extensively taught foreign language at schools. At the university level, learning a foreign language takes place in preparatory schools which were established for the purpose of teaching foreign languages to students. In one academic year which covers two semesters, preparatory schools offer an intensive foreign language program in order for students to acquire a wide range of academic skills such as reading research in their field, understanding lectures, taking notes, writing homework assignments and term papers, and orally delivering their work in the target language. In order to carry out these tasks successfully, students need a good command of both technical and academic vocabulary in the English language. In spite of this, due to time constraints and the ease of teaching and testing grammar, it is observed that vocabulary teaching has been given a secondary status at the expense of grammar. Elliott (1978) notes "learning new words or phrases is often viewed as a hindrance to this task because such study distracts the learner from observing and using the syntactic patterns of the language" (p.72). This practice is consonant with the traditional importance given to grammar in language teaching which is based on the belief that what students need first is to learn the basic grammatical rules of English which will help them develop the ability to understand the language and to communicate with others in spoken or written form. Thus, rather than being viewed as a skill to be developed in its own right, vocabulary has been taught indirectly within the realm of reading and listening.

It has been the experience of the researcher that students in Turkish university preparatory schools gradually lose their motivation when they begin to get the inevitable impression that the major obstacle to overcome in language learning is not only learning the grammar rules of the target language but also learning vocabulary that will be of real use to them. Students learn a lot of words, but they never feel that they can express themselves easily, naturally, and comfortably in English. The main problem

is the lack of essential everyday vocabulary they need in order to talk about their lives. This, in turn, often results in a group of discouraged students who believe that no matter how great the extent of their learning is, English will always be a problem for them, and they will never overcome the uneasiness when it comes to expressing themselves in English.

This situation is also disheartening for teachers who are anxious about their students' achievements in English despite hours of instruction. It becomes even more complicated when students come to the classroom with negative attitudes towards learning a foreign language.

1.3. Purpose of the Study

This experimental study aimed to determine whether teaching English through Suggestopedia/Reservopedia would produce increased amount of vocabulary learning in elementary level students at university preparatory classes and to determine the extent of the students' retention of those vocabulary words, compared with vocabulary taught through conventional methods at the preparatory school level.

The study was carried out in the preparatory school at the Abant İzzet Baysal University (AİBU) with the hope that its findings would pave the way for a more practical, yet effective vocabulary teaching and learning by means of Suggestopedia/Reservopedia. The preparatory school offers a one year intensive program of English courses to students from different majors who do not have a satisfactory level of proficiency in English to enroll in their undergraduate programs. Students first have to sit for the proficiency exam at the beginning of the academic year, and, according to the results of the exam, they either attend their departments or are placed in the preparatory school to take English as a foreign language course for two semesters.

Those who do not obtain the passing score in the proficiency examination take a placement test, and based on the results of their test scores, they are placed in one of the three levels: A Level-Beginners, B Level-Elementary Level, and C Level-Pre Intermediate Level.

Students receive Basic English (Grammar), Reading-Writing, Listening-Speaking courses from different instructors throughout two semesters. Although one of

the most important components of all the courses appears to be vocabulary, it can hardly be said that a systematic approach is adopted in the process of vocabulary teaching in classes. Mainly, the vocabulary included in the selected textbooks is taught. The problem with this is that no publisher furnishes information as to whether the vocabulary included in their textbooks has been selected using a principled selection process. Therefore, even though many of the students have mastered the grammatical structures, they experience difficulty in reading, writing, listening, and speaking when what they want to say is not in their textbooks. Life is not limited to the topics and words taught in textbooks. In this case, students experience problems finding the right words when they want to talk about their ideas that are beyond the scope of their textbooks. Furthermore, the lack of vocabulary knowledge usually causes problems when they do structural drills from other sources. Besides, instructors are not certain about the extent of their students' vocabulary learning.

1.4. Problem

Although it is widely accepted that the mastery of the most essentially needed words brings about success in all aspects of language, language programs do not pay systematic and principled attention to vocabulary teaching and learning which will result in the teaching and learning of those words and their storage in the long term memory of students. In the current practice in the school, students are expected to learn the vocabulary words in their textbooks during the course of two semesters, and they are evaluated accordingly. As the vocabulary students learn do not satisfy their communicative needs, they lose their motivation and begin to believe that learning a foreign language is considerably difficult and disheartening.

As the teaching process does not specify how students can be helped to store the words they learn in long term memory, students experience another major problem as they forget a sizable portion of the words.

1.5. Research Questions

In the light of the aims of the study stated in the purpose of the study section, the following research questions were formulated to investigate the extent of the enhancement of vocabulary through Suggestopedic/Reservopedic teaching:

- Is there a significant difference between the Suggestopedic/Reservopedic and Non-Suggestopedic/Reservopedic teaching in the vocabulary learning of university preparatory school students?
- To what extent does the preparation and adaptation of teaching materials according to the laws, means and principles of Suggestopedia/Reservopedia affect vocabulary learning?
- Do students remember vocabulary better when they learn English through Suggestopedia/Reservopedia?

1.6. Significance of the Study

Scarcity of longitudinal experimental studies that examine the effectiveness of vocabulary learning and teaching at preparatory schools in Türkiye and the place of vocabulary in language learning and teaching today have led the researcher to investigate the truth value of the statements made about vocabulary teaching in Suggestopedia/Reservopedia.

Although words to be taught were determined by the authorized coursebook, the researcher consulted the word lists that used principled selection criteria such as the Academic Word List (Coxhead, 2000), the General Service List (Bauman & Culligan, 1995), and the University Word List (Xue, G. & Nation, I. S. P., 1984) in order to form a systematic basis for the selection of the words.

In order to be able to use Suggestopedia/Reservopedia effectively and correctly, the researcher was trained personally by the creator of the method, Georgi Lozanov. In the light of her individual training and under the guidance of her advisor who is very knowledgeable in the method, the researcher developed her lesson plans and materials and applied the method accordingly. This study is important in this respect because using first-hand information from the developer of the method, and the

thesis' advisor, the researcher remained loyal to the true nature of Suggestopedia/ Reservopedia. This is important because other studies seem to present an image of Suggestopedia that is different from the true nature of the method. The reason for those different interpretations stemmed from the former political regime in Bulgaria which did not allow Lozanov the chance to correct the misinterpretations and misunderstandings regarding his method until 1989. In the absence of Lozanov from the scientific world, parties interested in the method interpreted it from their own perspective and understanding. It is hoped that this study will add to the current literature in this country.

1.7. Definition of Terms

The following are the definitions of the terms used in this research study.

Suggestopedia/Reservopedia	In its broadest sense, it is a teaching method applicable to every teaching and learning environment with its "new emphasis on the pedagogy of the hidden reserves of the human mind, on real humanization of teaching and learning, and on the friendly relationships on the group which raises hopes for a new societal culture (Lozanov, 2009, p.13).
Long Term Memory	A system or systems assumed to underpin the capacity to store information over long periods of time (Baddeley, Eysenck & Anderson, 2009, p.10).
Retention	An ability to recall or recognize what has been learned or experienced.
Experiment group	A group of subjects that receive treatment, intervention or stimulus in an experiment as opposed to the control group.

Control Group	A group of subjects whose selection and English language backgrounds are the same as the experimental group. However, they do not receive the experimental treatment.

CHAPTER II: LITERATURE REVIEW

2.1. Introduction

The literature review will be composed of three main parts. The first part will discuss the literature regarding vocabulary. The second part will provide information concerning memory. The third part will deal with Suggestopedia/Reservopedia, the method on which this thesis is based.

PART I: VOCABULARY

2.2. The Nature of Vocabulary Words

The nature of vocabulary words is not easy to define. With the revival of interest in vocabulary, some definitions were proposed, but all of these endeavors failed in some way due to highly complex nature of words. As stated in Chapter I, in the past vocabulary and grammar were regarded as two different entities. Current research, however, revealed that grammar and vocabulary distinction is not clear-cut, and vocabulary is not only composed of single words, rather "it operates beyond the level of single words" (Schmitt, 2000, p.96). That is to say, vocabulary often contains strings of more than one word with a single meaning. Such constructions are called multiword units (MWUs) which involve compound words (raincoat), phrasal verbs (pick up), fixed phrases (up and down), idioms (day in the sun), and proverbs (least said, soonest forgotten).

Therefore, the question of what should be counted as a word is not easy to answer. Aitchison (2003) states that "everybody thinks that they know what a word is. But the matter, which seems so simple, is in fact enormously problematical" (p.35). Along with this idea, Schmitt (2000) notes that "the term 'word' is too general to encapsulate the various forms vocabulary takes" (p.1). For instance, the thing is whether speak, spoke, speaking, and speaks should be regarded as a single word or four. In the example, there is a base, (root or stem) that is, "speak" and affixes. When the affix changes the grammatical function of the word, the result is an inflection (e.g. spoke, speaks). If it changes the word class, the result is a derivative (e.g. speaker). Despite the

difference in written forms (orthography), they are closely related in meaning. Such groups of words are known as "word families" which usually consists of the base word, its inflections, and derivatives. Therefore, it might be inferred that the potential knowledge that can be known about a word is rather rich and complex.

Nation, (2001) elucidates that "words are not isolated units of language, but fit into many interlocking systems and levels" (p.23). In order to get a better insight into the nature of words, it will be useful to understand levels of knowing a word.

2.3. Levels of Knowing a Word

Learning a word is a complex phenomenon. It requires learning and mastering of various types of information at the same time. Nation (2001) skillfully proposes a schema that summarizes the complexity involved in learning vocabulary. Nation proposes three levels in knowing a word with subcategories in each one. In his schema, R stands for Receptive Knowledge and P stands for Productive Knowledge.

Form	*spoken*	R What does the word sound like?
		P How is the word pronounced?
	written	R What does the word look like?
		P How is the word written and spelled?
	word parts	R What parts are recognizable in this word?
		P What word parts are needed to express this meaning?
Meaning	*form and meaning*	R What meaning does this word form signal?
		P What word form can be used to express this meaning?
	concept and referents	R What is included in the concept?
		P What items can the concept refer to?

	associations	R What other words does this make us think of?
		P What other words could we use instead of this one?
Use	*grammatical function*	R In what patterns does the word occur?
		P In what patterns must we use this word?
	collocations	R What words or types of words occur with this one?
		P What words or types of words must we use with this one?
	constraints on use	R Where, when, and how often would we expect to meet this word?
		P Where, when and how often can we use this word?

These levels show that there are several aspects and degrees of knowing a word and that they are related and affect each other in many ways. Besides, ultimate attainment in all levels does not occur simultaneously. To illustrate, being able to make use of a word in a conversation does not always mean knowing its written form. By the same token, one may know at least one meaning for a given word before knowing its collocations. “Each of the word knowledge types is likely to be learned in a gradual manner, but some may develop later than others and at different rates. From this perspective, vocabulary acquisition must be incremental” (Schmitt, 2000, p.5). Since meaning seems to be the most obvious kind of word knowledge, it will be discussed separately.

2.4. Meaning

At the most basic level, definitions presented in dictionaries are regarded as the meaning of words. These definitions, also known as the core meaning (denotation), usually convey the most common meaning shared by the members of a society. The core meaning of words is often limited, and one also needs encyclopedic knowledge (connotation).

Aitchison (1987) offers two views regarding word meaning: “fixed meaning view” and “fuzzy meaning view”. The former suggests that there exists a basic meaning for each word as with proper nouns and technical vocabulary whose referent is a single and unique entity; therefore, they do not cause misunderstanding among its users because of their fixed meanings and precise definitions. “At the most basic level, meaning consists of the relationship between a word and its referent (the person, thing, action, condition, or case it refers to in the real or an imaged world)” (Schmitt, 2000, pp.22-23). The latter view, on the other hand, argues that the majority of words do not have a fixed meaning and clear-cut boundaries rather they are flexible or fuzzy.

One reason for the fuzziness of the meaning might be due to different encyclopedic knowledge people have for the same word. The theory developed to explain how people cope with this fuzziness of the meaning is prototype theory “that proposes that the mind uses a prototypical ‘best example’ of a concept to compare potential members against” (Schmitt, 2000, p.25). This theory assumes that the core meaning features must determine membership in a concept category. “There is no firm boundary between the meaning of one word and another, and the same word often applies to a whole family of things which have no overall common characteristics” (Aitchison, 2003, p.52). “This is how unbirdy birds such as pelicans and penguins can still be regarded as birds. They are sufficiently like the prototype, even though they do not share all its characteristics” (Aitchison, 2003, p.57). In sum, the meanings of words pose several problems because it is difficult to determine a fixed core meaning for the majority of words.

2.5. Acquisition of Meaning in First and Second Language

Learning the meaning of words is a life-long process not only in second language but also in first language. Both L1 and L2 learners acquire the meaning of words either through exposure or formal study.

According to Aitchison (2003) children go through three basic phases when they acquire meaning:

i) labeling (attaching a label -word- to a concept),

ii) categorization (grouping a number of objects under a particular label),

iii) network building (building connections between related words).

Around one year of age, most children know concepts for many objects in their environment. After they learn labeling, a gap arises between the concepts they want to communicate, and the words they know. In an attempt to overcome this gap, they "overextend" their words. To illustrate, they might use the word "cat" for all four-legged animals. At about 2,5 years of age, overextension begins to fall off. They realize that not all four-legged animals are cats. Then, they begin to "underextend" objects that are not typical members of a concept category and exclude them from the concept. In other words, they begin to acquire categorization skills. In the last phase, children begin to improve "network building". This is the recognition that common concepts like cat and dog fall under the term "animal".

Different from L1 learners, L2 learners have a first language, that is, the conceptual system of their mother tongue. Having a conceptual system is both advantageous and disadvantageous. Because of their existing conceptual system, it is less likely for L2 learners to confuse a dog with a cat. "L2 learners seldom over- or underextend basic words, but may have trouble initially setting the meaning boundary between two or more related words that are less common such as job, career, vocation" (Schmitt, 2000, p.125). Attaching a word in L2 directly to L1 equivalent constitutes one drawback of having a conceptual system. This situation stems from the fact that there is not always one-to-one correspondence between words in two different languages. Thus, L2 learners need to construct a new conceptual system congruent with the target language.

2.6. Organization of Words / Mental Lexicon

Native speakers of a language, even bilinguals, or multilinguals store a lot of words in their minds. This human word store is often referred to as the "mental dictionary" or "mental lexicon".

Most of the time speakers of a language do not have much difficulty in recalling the necessary word among thousands of others. One important reason of remembering might be attributed to the systematic organization of the words in the minds. Aitchison (2003) attributes the existence of a highly organized mental lexicon to "the large number of words known by humans and the speed with which they can be located" (p.9).

2.7. Types of Words

Languages consist of many words which might fall into one of the two different word classes: content words and function words.

Content words are words that convey meaning. Nouns, verbs, adjectives, and adverbs are usually content words. Content words are an open class words. In other words, new words can be added to them such as technical terms, slang words, or words from other languages. There is no limit to the number of content words that can be added to the language. Communication or the meaning of a text is more or less comprehensible by means of these words alone. It is the content words that are commonly used where the aim is to convey a message.

Content words can be compared with function words (grammatical words) which include auxiliary verbs, pronouns, conjunctions, articles, and prepositions. They provide structural relationships with other words in a sentence. Function words are a closed class words, that is, it is not very usual to create new function words. For instance, the last time when a pronoun came into the English language was in the sixteenth century: it was “them”. In the past, function words belonged in the domain of grammar teaching, but vocabulary was more concerned with content words.

2.8. Active (Productive) / Passive (Receptive) Distinction

Words are gradually learned through exposure in various situations. This gradual nature of vocabulary acquisition also reveals itself in the active (productive) and passive (receptive) distinction in knowing vocabulary. To illustrate, one may know the meaning of a word, but may not use it in a context due to the lack of productive collocation and register knowledge. Nation (2001) announces that “receptive carries the idea that we receive language input from others through listening or reading and try to comprehend it, productive that we produce language forms by speaking and writing to convey message to others” (p.24).

It is generally assumed that passive (receptive) knowledge precedes active (productive) knowledge. The knowledge of the former is much larger than that of the latter. Melka (1997) argues that “this is too simplistic and that receptive and productive mastery should be seen as poles of yet another continuum” (as cited in Schmitt, 2000,

p.119). Two possible reasons that may account for the difficulty between receptive/productive distinction are as follows:

i) the lack of standard testing instruments,

ii) different definitions of receptive and productive knowledge (Schmitt, 2000).

What seems clear is that a word might not be known either receptively or productively at the same time. Therefore, rather than "thinking a word being known receptively or productively, it may be better to consider the degree of receptive/productive control of the various word-knowledge aspects" (Schmitt, 2000, pp.119-120).

2.9. Vocabulary Acquisition

Despite the fact that the acquisition of new words and new meanings for old ones is a slow process, the number of words known by a native speaker is mind boggling. Regarding the nature of vocabulary acquisition, Schmitt (2000) expounds the following:

> The learning process is not an all-or-nothing process in which a word is suddenly and completely available for use. Rather, our knowledge of individual words grows over time, both in our ability to use them receptively and productively and in the different kinds of word knowledge we come to master. (p.6)

Due to vocabulary's complex nature, there are still areas that have not been discovered yet. Consequently, a sound theory that expounds how words are acquired does not exist now. However, it is obvious that first language, context, age, amount of exposure, motivation, and culture are principal factors that determine how vocabulary is acquired. Research into vocabulary acquisition draws attention to two processes involved in the acquisition of vocabulary: incidental learning, and explicit learning.

2.10. Incidental and Explicit Learning of Vocabulary

Despite the fact that these two views are often viewed at opposed ends, Nation (2001) states that "they are complementary activities, each one enhancing the learning that comes from the other" (p.232).

Both L1 and L2 learners might learn vocabulary incidentally and explicitly. In L1, much of the vocabulary acquisition occurs incidentally. Even in their mother's womb children are exposed to a huge amount of input. Research revealed that "embryos become accustomed to the prosody (rhythm, flow, and stress of a language) of their mother's speech while still in the womb" (Schmitt, 2000, p.122).

In the 1970s and 1980s, due to the influence of the top-down naturalistic, communicative approaches implicit, incidental learning of vocabulary was favorable. Those approaches emphasized the importance of contextual clues over giving clear definition of words. However, this created a number of problems. First, teaching contextual clues was a reading strategy, not a way of teaching vocabulary. Second, even though exposure to a word in different contexts was the key to learn the meaning, it was a very slow process. Third, students with low-level proficiency often made incorrect guesses which, in turn, damaged their learning; this process is known as "beginner paradox" which postulates that it is not possible for beginners to learn through reading when they do not know enough words.

Research draws attention to an important finding regarding explicit learning: "the more one manipulates, thinks about, and uses mental information, the more likely it is that one will retain that information (depth levels of processing hypothesis)" (Schmitt, 2000, p.121). Its implication for vocabulary teaching is that the more one is mentally involved with a word, the more that word will be retained. The "Keyword Method" can be given as an example of explicit learning in which deeper processing is involved. This is a mnemonic technique that "involves devising an image that typically connects the pronunciation of the second language word with the meaning of a first language word" (Thornbury, 2002, p.145). The research revealed that while "use of deep processing techniques has been shown to help fix target words in memory, shallow processing, such as repeatedly writing a word on a page does not seem to help retention" (Schmitt, 2000, p.121).

Today, it is thought that for foreign language learners both explicit and incidental learning are essential and both should be taught to complement each other. As Sökmen (1997) aptly puts it, "the pendulum has swung from direct teaching of vocabulary (grammar-translation) to incidental (the communicative approach) and now laudably, back to the middle: implicit and explicit" (p.239). While some words (high

frequency words) can be learned explicitly, teaching of others (low frequency words) can be acquired incidentally**.**

2.11. Historical Framework of Vocabulary Teaching

History of language learning is as old as history and the same holds true for the teaching of vocabulary. In the ancient times, the art of rhetoric was highly favorable. Since rhetoric required a sophisticated level of vocabulary, lexis was considered important. In the medieval period, however, the study of syntax enjoyed popularity. Although during the Renaissance, syntax was favored, some reformers (William of Bath and John Amos Comenius) challenged the primacy of syntax and emphasized the significance of vocabulary acquisition instead. In an attempt to systematize the selection of vocabulary, Comenius proposed the idea of a limited vocabulary which was much later adopted in the twentieth century as part of the "Vocabulary Control Movement".

The eighteenth and nineteenth centuries witnessed the Age of Reason, an era when grammar was highly appreciated. At that time studies to make vocabulary standard culminated in the production of some dictionaries such as Robert Cawdrey's *A Table Alphabetical* (1604) and Samuel Johnson's *Dictionary of the English Language* (1775).

From the mid-nineteenth century to the beginning of World War I, the Grammar-Translation Method (GTM) dominated language teaching. First introduced in public schools in Prussia, Germany, the GTM aimed to prepare students to read and write classical literature. To that end, students were presented with both detailed descriptions of grammar rules in their native language and bilingual literary vocabulary lists to memorize which provided ease for the translation of long passages of the classics. Vocabulary instruction was resorted only when a word was used in a grammatical rule. Students had to cover the necessary vocabulary on their own through bilingual word lists.

Due to its neglect of teaching how to communicate, the GTM was challenged in the mid 1800. At that time two important scholars dealt with vocabulary. While Francois Gouin pointed out the importance of the acquisition of action words, Thomas Prendergast, argued against the teaching of archaic vocabulary lists. In his book, Prendergast cited the most frequent English words, based on his intuition. His list was

an important endeavor because it emerged at a time when simple and every day language were not considered a priority. Although Marcel, Prendergast, and Gouin contributed much to the field of language learning and teaching at that time, their ideas did not receive widespread acceptance since they were outside the established academic circles.

In the 1880s, the opponents of the GTM, under the leadership of some prominent linguists such as Henry Sweet in England, Wilhelm Vietor in Germany, and Paul Passy in France established the "Reform Movement". The Reformers put more emphasis on the spoken language and pronunciation. Vocabulary words were selected according to their simplicity and practicability. Although suggestions of the members of the Reform Movement did not provide a basis for a uniform method, their interest in language learning similar to first language acquisition resulted in natural methods, which in turn, led to the emergence of the Direct Method by the end of the nineteenth century.

Developed in the United States by Sauveur and made popular by Berlitz, the Direct Method claimed that second language could be learned in a way similar to the acquisition of first language. Therefore, it put interaction at the heart of language learning. It was assumed that vocabulary words would be acquired naturally through exposure. Since the emphasis was on the use of language, simple and familiar vocabulary such as objects in the classroom, parts of the body, clothing were taught by means of demonstration, gestures, drawings, miming or pictures.

The 1920s and 1930s witnessed the emergence of the Reading Method in the States and Situational Language Teaching in Britain. In the U.S, the Coleman Report of 1929, stated that most of the American students were subjected to a foreign language for a period of two years only and it was not enough for the development of overall proficiency in one foreign language. The report concluded that in such a limited span of time, only the development of reading ability was possible, and that the development of reading ability could be enhanced by means of vocabulary that was gradually presented in graded readers. In response to the 1929 Coleman Report, the Reading Method emerged to teach how to read in a foreign language. Inevitably, vocabulary was seen as an essential component of reading proficiency.

Pursuing this belief, in Britain, Michael West emphasized the need to enhance reading skills through the development of vocabulary. He put forward that language learners did not know even a basic thousand words due to the following reasons:

i) the activities were not communicative enough to help them speak the language;
ii) they did not learn useful words;
iii) they did not have an adequate command of words they were learning.

Furthermore, West noted (1930) that the modern textbooks used in English schools did not offer any solutions to the problem. In 1930, West suggested using Thorndike's word frequency list which was also used to provide a basis for graded readers in which the presentation of new vocabulary was gradually introduced. In 1953, West published "A General Service List of English Words" which still enjoys popularity today as a standard reference.

At that time British linguists H. Palmer and A.S. Hornby developed a more scientific basis for an oral approach to language teaching, called Situational Language Teaching Movement. The result was the "more scientific foundation for an oral approach to teaching English than was evidenced in the Direct Method" (Richards & Rodgers, 2001, p.36). In this approach structures were introduced in meaningful situations. The learner was expected to induce the meaning of a particular word from the situation in which it was presented. For the first time, vocabulary was treated as one of the most important components of second language learning. Independent contributions of Thorndike, Palmer, Hornby, and West "to introduce a scientific and rational basis for choosing the vocabulary content of a language course represented the first attempts to establish principles of syllabus design in language teaching" (Richard & Rodgers, 2001, p.37).

The focus on reading skills continued to shape foreign language teaching in the U.S. until World War II. During the war, however, the American military needed people who could speak foreign languages fluently. Once the shortcomings of the previous approaches became apparent, a need arose for a method that would quickly train the soldiers in oral/aural skills. Under the leadership of Charles Fries of the University of Michigan, American structural linguists proposed a program applying principles from the Direct Method with its focus on listening and speaking skills. Drawing its rationale

from behaviorism and structural linguistics, the "Army Method" included activities to develop pronunciation and help master grammatical sentence patterns. New words which were presented through the drills were relatively easy and simple. The students who were trained in this method were highly successful. This success resulted in the adoption of the method after the war, and it came to be known as the Audiolingual Method (ALM).

Therefore, the role of vocabulary in the language curriculum was neglected during the 1950s and 1960s as it was considered as the easiest aspect of the language. It was thought that new words would be introduced in structures according to needs of students at a later stage. This was based on the belief that once good language skills were developed, knowledge of vocabulary would automatically increase. One outcome of the neglect of vocabulary in language learning was the failure of teaching essential communication skills.

With the publication of Chomsky's "Syntactic Structures" in 1957, the idea of the ALM which posited that learning a language required particular habits was challenged and the ALM began to lose ground. Language acquisition began to be seen as a process affected by cognitive factors. Chomsky argued that with an innate set of abstract rules shared by all humans, people could generate and understand utterances they had never heard before. However, he did not focus on the use of language in communication. In response to Chomskyan concept of "linguistic competence", Hymes later suggested the concept of "communicative competence". "This helped to swing the focus from language correctness (accuracy) to how suitable language was for a particular context (appropriateness). The approach that emerged from these notions emphasized using language for meaningful communication - *Communicative Language Teaching*" (Schmitt, 2000, p.14).

As stated previously, communicative language teaching did not develop a systematic approach to vocabulary teaching. Rather than vocabulary, the appropriate use of communicative functions of language received attention. It was not until 1980s that vocabulary began to receive the due attention it deserves.

To conclude this section, the history of the language teaching methodology shows that language was viewed either as a subject for study or a tool for communication. Vocabulary assumed different roles in different approaches. Most

approaches did not emphasize how to teach vocabulary, considering that it would be acquired naturally.

PART II: MEMORY

2.12. Introduction

The study of different approaches sheds light on what counts as memory. To that end, this part of the thesis will provide information about studies on memory, types of memory, how they are viewed in different approaches, and forgetting.

2.13. Memory

In the course of our life, we store a huge amount of information in our memory. If we did not remember anything from our experiences, we would learn nothing. This suggests that all learning involves memory. In the absence of memory what dominated us would be just unrelated strings of momentary events. Besides, without memory we could not even attend to a simple talk as we have to remember the ideas we want to convey as well as what we hear. More importantly, we would not be conscious of "ourselves" as the concept of "self" entails a sense of continuity that is only possible through memory. As Stevick (1996) notes, "the self that speaks and reads and responds to language is made up of memories" (p.3). Loftus and Loftus (1976) define memory as "some kind of repository in which facts (information) may be retained over some period of time" (p.1). According to Lieberman (2004) "memory is a bit like swan seen gliding across a lake, seen from a distance, all effortless grace, but underneath the surface paddling away furiously" (pp. 370-371).

It is impossible to consider any act of learning independent of memory. In fact, memory is the solid ground of learning. Squire (1987) states that "learning is the process of acquiring new information, while memory refers to the persistence of learning in a state that can be revealed at a later time. Memory is the usual consequence of learning" (p.3).

Learning a language and memory are two closely related entities that it would be wrong to treat them separately. Stevick (1996) explains the relationship between the two as follows:

> Language is the special treasure of our human race. It is a mystery linking one entire person to other entire persons over space and time. To learn a second language is move to from one mystery to another… But language, mystery that it is, rides on a deeper, broader mystery called memory. (p.3)

2.13.1. Ebbinghaus Tradition

The first experimental study of memory (for words) began with Ebbinghaus, a nineteenth century German philosopher. Out of his studies some of the fundamental tenets of human memory emerged.

Being the first person to point out the importance of studying memory experimentally, he investigated how well we remembered our experiences. He studied the memory for words and used himself as the subject of his studies. In order to remove the effects of past learning, he developed meaningless syllables to memorize instead of using real words. His method consisted of reading aloud a list of nonsense syllables and then repeating the list in the correct order until he recited the list perfectly.

One striking outcome of his efforts was the importance of practice: the more time we spend practicing the material, the better we remember it. His finding was also supported by other researchers (Ericsson & Charness, 1994). Agreeing with Ebbinghaus' view, Lieberman (2004) states that "all skills from the mundane to the most sublime rest on a base of extensive, even grueling practice" (p.326).

Ebbinghaus also demonstrated that not only the frequency of practice, but also how this practice was distributed over time was important in remembering. Once he learned the list perfectly, he investigated forgetting, that is, how memory for learned material deteriorated over time. Therefore, he retested himself after an interval ranging from 21 minutes to 31 days to see how many of the syllables he could recall. If he could not recite the list perfectly, he tried to relearn and recorded how many trials he needed. He found out fewer trials were necessary to learn the list the second time and a relationship between time and retention. His study revealed that forgetting was very fast over the first hour, but then declined slowly over following days and the rate of forgetting was logarithmic rather than linear.

Ebbinghaus' study was associative by nature. Associative thinking dominated early studies on memory until the early 1950s. Ebbinghaus argued that when he read a

list, connections were formed between each successive syllable, and the power of these associations eventually enabled him to recall the syllables in correct order. Although further research led to a completely new understanding for memory, it was Ebbinghaus who established the foundation in this field.

Evidence against an associative perspective of memory came from Chomsky who argued that there were at least two levels of analysis in the processes involved in comprehension and remembering a sentence: the surface structure and deep structure. "The key point is that when subjects read a sentence, they do not simply associate words; they carry out a complex analysis of the syntactic and semantic relationships among the words" (Lieberman, 2004, p.312).

2.13.2. Behaviorist Psychology and Its Relation to Memory

Behaviorism deals with objectively observable behaviors to measure animal and human learning without taking into account internal mental activities. In this view, learning is nothing more than the acquisition of new behaviors. The basic procedure involves stimulus, response, and reinforcement. The process of linking a response to a particular stimulus is known as associative learning which still accounts for how certain aspects of languages are learnt. In this approach, learning and memory are simply explained in terms of stimulus-response exchange.

This view of language learning gave rise to several potential problems. Most important of all was that in many experiments subjects were animals. The use of findings emerged from animal experiments in explaining complex human behavior caused the first problem. The second major problem was related to the role assigned to the human brain in shaping the behavior and the lack of attention paid to memory. The brain was considered as nothing more than a black box influenced by external factors in the behaviorist tradition. "There was no explanation about the concept of memory and storage, or of the way that the process of memorization may have been affected by attentional processes in the brain" (Randall, 2007, p.7).

2.13.3. Cognitive Psychology and Its Relation to Memory

Kenneth Craig in his book *The Nature of Explanation* (1943) suggested a computer based theoretical model to psychology. This resulted in an approach called cognitive psychology. With the arrival of cognitive psychology in the late 1950s,

psychologists drew their attention from the analysis of external animal behaviors to the internal operations of the human brain. It was thought that findings obtained from animal behaviors could not explain complex human behaviors. The shift of focus from the external mechanisms to the internal one was important.

Computer technology influenced the terminology for processing in memory. Information processing approach became influential and the concept of memory began to be viewed in terms of "information". As Loftus & Loftus (1976) note "the development of information theory and the development of computers were in large part responsible for stimulating this approach" (p.3).

It was assumed that a computer processed the information in three stages: coding the input, storing it, and then retrieving it. Similarly, memory was conceptualized as a sequential process of coding, storing, and retrieving information. Loftus & Loftus (1976) state that "human behavior is viewed as resulting from an interaction between information acquired from the environment and programs residing within the human that process and utilize this information"(p.7).

2.13.4. Neurobiological versus Neuropsychological Perspective to Memory

It is generally thought that definitions of memory stages are mostly related to the level of analysis. Therefore, the distinction between the neurobiological and neuropsychological approaches stems from their use of a different level of analysis to explain memory.

The neurobiological view analyzes memory at the level of cells and synapses. From this point of view, short term and long term memory are explained in terms of synaptic events. Synaptic changes that begin at the time of learning and are completed quickly are described as short term memory whereas synaptic changes that begin later are called long term memory. This idea was based on Canadian psychologist Donald Hebb's "cell assembly theory" which is often summarized as "cells that fire together, wire together". In his theory, Hebb suggests that "all long term learning depends on the development of cell assemblies, based on persisting changes of the cellular level" (Baddeley et al., 2009, p. 91).

In the field of neuropsychology much evidence on memory comes from the patients with memory impairment. Studies with these patients have demonstrated that

damage to the related areas in the brain impairs their function, leaving only capacity for areas that do not suffer from any damage. This finding hints the existence of different memory storage areas in the brain. From this perspective, memory can be explained in terms of how brain systems functions rather than sequential events at individual synapses.

2.14. Types of Memory

There appears to be divergent opinions about the nature of memory, each reflecting perspectives of different scholars. Under the influence of the cognitive approach to memory, "the balance of opinion moved from the assumption of a single memory system based on stimulus-response associations towards the idea that two, three, or perhaps more memory systems were involved" (Baddeley et al., 2009, pp.5-6). Therefore, the question of how many types of memory remained debatable.

According to the most widely accepted idea, there are two kinds of memory: short term memory and long term memory. That memory was composed of two separate components (primary memory and secondary memory) was first suggested by William James at the end of the nineteen century. Since no evidence was found to support his assumption, subsequent theories argued that memory was unitary rather than dichotomous. However, research findings emerged from the laboratory and clinical settings in the 1950s reinforced James' hypothesis. "Differences in the properties of older memories and recent ones in speed of forgetting and in capacity-suggested to a number of psychologists that we might possess two memory stores rather than one" (Liebermann, 2004, p.320).

An interesting work on the existence of two types of memory was published in 1956 by George Miller who wrote a paper entitled "The magical number seven, plus or minus two". His paper drew attention to the difference in the number of events that we could store for recent memories and older ones. That is to say, we can store only 7 recent events at any time, and this contrasts sharply with our capacity to store older memories which is vast.

The existence of separate short term and long term store has also been supported by research on amnesia. Studies with amnesics show that some forms of brain damage impair short term memory while others affect only long term memory. "The

conclusion is that the normal functioning must be based on information in one memory store, whereas the impaired functioning must be based on information in another memory store" (Loftus & Loftus, 1978, p.39).

As stated earlier, cognitive approach to psychology strengthened the idea that human memory could be composed of more than one memory system. It was thought that human memory might go through three stages similar to working of computers: the capacity to encode, to store and to retrieve information when needed. This in turn led to the idea that there were three broad types of memory: sensory memory, short term memory, long term memory.

2.14.1. Sensory Memory

From the point of view of the cognitive approach, information flows from the environment to the sensory store and then the short term store to the long term store. The decision of which information is to be led to the short term store and which is to go from the sensory store depends on one's choice and attention. Randall (2007) states "the sensory stores act as the guardians to our minds by selecting and filtering information, thus avoiding us being inundated with too much information" (p.16).

One model of sensory memory based on information processing approach was suggested by Atkinson and Shiffrin which came to be known as "modal model" (1968). According to this model, information received from environment is led into a temporary short term or working memory before being passed onto long term memory. Information in the sensory store is raw, and it acquires meaning once it is transferred to the short term store. The model suggests that the sensory store can store more information than the short term store, yet this information decays very quickly unless it is directed to the short term store.

The modal model was not without its limitations. One limitation was related to the view that simply holding the input in the short term store would ensure learning. This assumption was challenged by Craik and Lockhart (1972) with their principle of deep levels of processing, "which maintains that learning depends on the way in which material is processed, rather than time in short term storage" (Baddeley, et al., 2009, p.42).

2.14.2. Short Term Memory

As with other areas of interest, short term memory has been approached in different ways in the psychological tradition. Therefore, different views were alleged, concerning the operations of short term memory.

The concept of short term memory was integrated into the information processing framework as concept of limited capacity with a temporary nature. According to the Atkinson and Shiffrin's information processing model (1968), the function of the short term store is to process information. Information held in this store deteriorates with the passage of time. For instance, a word transferred to the short term store will be lost in 30 seconds. Transferability of an item into the long term store depends on how long it is held in the short term store, thus, "rehearsing a word not only keeps it active in the short term store, but also makes it more likely that a permanent trace will be formed in the long term store" (Lieberman, 2004, p.321).

Instead of viewing short term memory as a storage system in which information is held before it is transferred to long term memory, Shiffrin and Schneider (1977) suggest that "short term memory could be more usefully conceived as a subset of long term memory, consisting of the items in long term memory that are currently in an active state" (Lieberman, 2004, pp. 345-346). The researchers argue that every word has its own node in the brain which becomes activated whenever that word is perceived. To illustrate, when we read a particular word, this activates the node in long term memory that represents the related concept. In this view, short term memory is "simply the set of long term memory locations or nodes that are active at any one time" (Liebermann, 2004, p.346).

Squire (1987) notes that "short term memory refers to a system that retains information only temporarily in a special status while it becomes incorporated, or transferred, into a more stable, potentially permanent long term store" (p.135). One of the most influential figures in this field, Baddeley (2009) defines short term memory as "the temporary storage of small amounts of material over brief delays" (p.9). According to his point of view, short term memory might be influenced by the information in long term memory.

In current thinking, many theorists view short term memory as the set of active items in long term memory. It is not simply a temporary store in which sensory input is

held, but also a place where material from long term memory is held to be used in activities such as problem solving. To reflect this role, short term memory is now often referred to as working memory.

2.14.3. Working Memory

A number of different theoretical approaches to working memory have been put forward. In most cases, the terms short term memory and working memory are used interchangeably. The idea that short term memory served as working memory was suggested by Atkinson and Shiffrin (1968). In their view, the short term store was not simply a place for holding information before it was transferring to the long term storage, but an area where materials already in storage could be brought for further processing

According to Squire (1987), working memory is "a workspace or memory buffer in which to maintain information while it is being processed" (p.137). Referring to working memory as worktable, Stevick (1997) notes that "a critical aspect of the working memory concept is that it involves the simultaneous storage and processing of information, and requires the maintenance of some information during the processing of that or other information" (p.27). Baddeley (2009) states that the term "short term memory is distinguished from working memory which is assumed to combine storage and processing and to serve as a mental workspace for performing complex tasks" (p.39).

Both short term memory and working memory are important in our understanding of how language is processed. Information processing view postulates that sounds/words/phrases/ come into short term memory/working memory and are held for a short time. In this view, language is received and processed in a serial fashion, sound by sound, word by word or phrase by phrase; information is received through the senses and then goes through a series of memory stores.

Given the fact that simple serial model would be insufficient to describe the complex task of learning and memory, serial processing models have been challenged by parallel processing models (also known as connectionism, interactive activation or spreading activation model). Working memory is more associated with parallel processing models of language comprehension. In this view, sounds, words, and phrases

are taken in and connected with other information such as knowledge of grammar. This is also related to how the brain functions, which is known to involve a vast number of neurons connected into neural networks. As Randall (2007) notes:

> The brain is able to carry out multiple level of activity simultaneously and thus several processes can take place at the same time and not in a serial order, spreading activation through many parts of the brain through a highly complex system of neural networks. (p.18)

2.14.4. Long Term Memory

The final component of the memory system is the long term store with unlimited capacity. It connects us to the past. "Without the long term store there would be nothing: no books, no television, no learning, no communication for it is our ability to recall the past that allows us to interact with our environment in a dynamic way" (Loftus & Loftus, 1978, p.56).

According to Stevick (1996), "long term memory has been used for pretty much whatever remains available in memory after the expiration of the 20 seconds or so that short term memory supposedly lasts" (p.29). Therefore, it might be inferred that the longer information retains in the short term store, the more that information can be transferred into the long term store.

As with other components of memory, the existence of divergency of terms used to describe the processes in long term memory draws attention to theoretical dispute over the matter. The most widely accepted model was proposed by Squire (1987) who states that:

> According to how information is presented in long term memory, two distinctions can be made: declarative versus procedural memory, that is between memory for facts and episodes, and memory for skills and other cognitive operations and a subdivision of declarative memory into episodic and semantic memory. (p.151)

2.14.4.1. Declarative versus Procedural Memory

The data from amnesic patients have revealed the distinction between declarative and procedural knowledge. As its name suggests, declarative memory is declared and deals with specific events that happened in particular times and places,

with facts or information about the world and is directly accessible. Declarative memory is viewed as more cognitive and fast whereas procedural memory is slow and more automatic. These two forms of different memory systems are assumed to be different in their biological organization as well. Squire (1987) notes that "differences exist in what kind of information is stored, how it is used and what neural systems are required" (p.162). It is impaired in amnesia. This memory system is divided into two categories: episodic and semantic memory.

Procedural memory is related to knowing how to do something; whereas declarative memory is related to knowing that something happened. To illustrate, if you remembered that you had a swimming lesson yesterday, this would be an example of declarative memory; if as a result, you became a better swimmer, this would be an example of procedural memory.

Research into amnesia has also shown that amnesic patients can perform tasks that do not require conscious remembering of previous experiences such as solving jigsaw puzzles, driving a car, riding a bicycle. This is related to procedural memory that can only be expressed in performance or in skills rather than through explicit remembering. In contrast to declarative memory, procedural memory is not accessible like specific facts, data, time and place. It is spared in amnesia.

2.14.4.2. Episodic and Semantic Memory

Two types of declarative memory are episodic and semantic memory. The idea of episodic and semantic memories was proposed by the Canadian psychologist, Endel Tulving (1972, 1983). Episodic memory refers to memory for personal experiences, facts, and their relations. This type of memory involves remembering a particular past moment or episode in our lives which are related to particular times and places. In Tulving's terms, "an association between an event and its context provides the basis for episodic memory. If we later reactivate the event together with its context, we effectively re-create the moment when we originally experienced them" (Lieberman, 2004, p.379). "Tulving (2002) limits the use of the term episodic memory to situations allowing us to relieve the past and use this information to imagine the future" (Baddeley et al., 2009, p.11).

Semantic memory, on the other hand, refers to more general kinds of knowledge, one's knowledge of world, facts, words, concepts, and relations. Baddeley (2009) notes that:

> It goes beyond simply knowing the meaning of words and extends to sensory attributes such as color of a lemon or the taste of an apple. It also includes general knowledge of how society works, what to do when you enter a restaurant, or how to book a theater seat. (p.11)

It is believed that the episodic system is responsible for connecting the words with the contexts in which they occur, whereas the semantic system analyzes their meaning.

2.15. Memory for Words

It is often assumed that when information in short term memory resides long, it is directly transferred into long term memory. One theory assuming such a transfer is the "dual memory theory". The dual memory theory suggests that simply repeating words improves long term recall. However, findings have revealed that rehearsal on its own has relatively little effect to create a long term effect. Craik and Lockhart (1972) propose that more durable memory can be attained through "deeper level of processing". Their study points out that analyzing meaning of words produces better memory.

Further research suggests that our memory for words depends on not only how deeply we process them, but also how elaborately. "Depth refers to continuum from shallow sensory processing to a fuller analysis based on word meaning; elaboration involves the extent to which we consider not only the meaning of a word on its own but its relationships to other words" (Lieberman, 2004 p.355).

In an attempt to demonstrate how elaboration improves memory, Bower and Clark (1979) presented their two groups of subjects with lists of unrelated words to memorize. One group was only asked to remember the words, the second group was asked to create a story to integrate the given words. Although both groups were given the same amount of time to memorize the lists, "participants in the control condition could only remember 13% of the words, whereas those who had embedded the words in meaningful narratives recalled a remarkable 93%" (Lieberman, 2004, p.356). This study

points out the fact that memory for words does not depend on simple practice. Rather, the way the words are processed in short term memory determines how well they are later retrieved. That is to say, words presented in a meaningful context are much easier to remember than words simply put in isolation.

2.16. Forgetting

One important characteristic of memory is that once information is encoded and stored, it gets lost over time. This process of information loss is known as "forgetting". In order to describe what forgetting is, we need to understand what constitutes forgetting in short term and long term memory.

Theories on short term forgetting suggest that two processes might lead the information to disappear from short term memory: displacement and decay. Displacement is most likely to occur when the limited capacity of short term memory exceeds seven bits of information. Decay theory, on the other hand, suggests that information simply deteriorates with time. In this view, forming a memory is similar to "writing a name on the sand on a beach - as the time passes, wind erodes the message, until eventually no trace remains" (Lieberman, 2004, p.416). In an attempt to understand how long it takes for the information to be lost from the short term store, some experiments were conducted. (Brown, 1958, Peterson & Peterson, 1959). "The results of the Brown-Peterson paradigm demonstrate that forgetting from the short term store is complete within 15 seconds" (Loftus & Loftus, 1976, p.41).

In terms of long term forgetting two possible theories were proposed: decay and interference. Theory of decay suggests that forgetting is caused by the passage of time. Theory of interference, on the other hand, views forgetting as the result of the events that occur during the interval and the more the number of the events, the greater the interference. "In essence, the suggestion is that we form new memories as time passes, and second these new memories interfere with our ability to recall older ones" (Lieberman, 2004, p.416).

In order to test the interference hypothesis, it is necessary to control how many new memories are formed during the retention interval. In their study, Jenkins and Dallenbach (1924), in order to reduce the number of memories formed during the delay, they asked their subjects to sleep. Their study contained two phases, and two

participants were asked to memorize a list of nonsense syllables, and after a period of between 1-8 hours, they tried to recall these syllables. In one phase, they remained awake during the retention interval and continued their everyday routines. In the other phase, they memorized the lists at night immediately before going to bed so that they spent most of the retention interval asleep. The assumption is that if forgetting is the result of decay, then forgetting in the two conditions should be the same because the amount of time is the same. If forgetting is caused by interference, we should expect more forgetting when the participants remain awake because they may tend to create new memories. The results provided evidence for the interference theory: when subjects slept, they could recall approximately five syllables, whereas they could recall only one when they remained awake. In other words, forgetting is affected by the events that occurred during the retention interval. This study showed that interference is an important cause of forgetting. Besides, forgetting occurs even when the subjects are asleep as the decay theory suggests, but its impact is not significant.

Two possible views may account for why interfering events can cause forgetting: unavailability or inaccessibility. Findings reinforce the idea that much of the information that seems to be forgotten is actually still present in our memories; it might appear lost, yet only needs suitable retrieval cues. The tip of the tongue studies and findings from recall and recognition tests strengthened this assumption.

The tip of the tongue refers to subjective feeling that something is just at the tip of our tongues, but we may not be able to recall it. This suggests that the forgotten material is really still there. Further evidence that we store far more material than we can normally retrieve has come from studies comparing recognition and recall. In a recall test subjects are asked to produce the material they have learned without any cues. In a recognition test, by contrast, subjects are shown material and asked whether they have seen it before. Such experiments have reinforced the assumption that people are usually much better at recognizing material than recalling it. The fact that we cannot recall an event does not necessarily mean that it is not there. With suitable help, it is assumed, we become very good at remembering.

The effectiveness of a retrieval cue depends on how strongly it is associated with the event during encoding. In particular, it appears that internal as well as external stimuli such as visual stimuli, tastes, emotional states, and odors can serve as retrieval

cues. The other factor in facilitating retrieval is organization. “If the material was coded in a highly organized or structured form, then retrieving one aspect will be more likely to lead to retrieval of related aspects” (Lieberman, 2004, p.466).

In sum, much of the forgetting might be assigned to exceeding the storage capacity or decay in short term memory, whereas forgetting from long term memory results from a loss of access to the information (accessibility) rather than from a loss of the information (availability) itself. In this case, suitable cues are needed to bring the information to the mind.

PART III: SUGGESTOPEDIA/RESERVOPEDIA

2.17. Introduction

A comprehensive review of literature, including dissertations, theses, and articles related to Suggestopedia/Reservopedia published abroad and in Türkiye, indicated that there was little that reflected the true nature of the method. Furthermore, research on the current state of the method is not readily available. The researcher followed the works written by the developer/s of the method and under the light of her training by Lozanov was able to extract a vast amount of false information from the literature concerning the method.

An overview of the current literature has revealed that Lozanov’s ideas have been taken to be used in modified forms of the method such as Superlearning, Accelerated Learning, Suggestive-Accelerative Learning, and Psychopaedie. Despite the fact that available research on the method is far away from reflecting the essence of the method, these studies suggest favorable results concerning the effects of the method on learners.

The review of literature presented in this section will first provide information about the basic concepts used in Suggestopedia/Reservopedia. It will then continue with the historical development and the current state of the methodology.

2.18. What is Suggestion?

In order to understand the essence of Suggestopedia/Reservopedia, it will be useful to understand what suggestion is, how the Suggestopedic/Reservopedic definition

of suggestion is different from the ordinary, clinical use of the term, and how Lozanov came to his own definition of "Suggestion", the suggestion with a capital "S". The term suggestion has been defined in different ways by different scholars according to their particular interpretation and point of view.

By origin, the term suggestion comes from the Latin word *suggero, suggesi, suggestum*, that is, "to place, to prompt, to hint". The word is used in different languages with more or less negative connotations. In English it means "to offer, to propose", a meaning away from negative associations. In Suggestopedia/Reservopedia suggestion is used in this meaning of the word. Thus, it is up to the student's free will to choose or to reject it. "This refers, not only to what, but to how to propose, so that, for the person, the suggestion will be a most acceptable and natural thing and the anticipated phenomenon will occur" (Lozanov, 2009, p.29).

Suggestion has often been associated with hypnosis by some researchers. This probably stemmed from the fact that for the first time suggestive phenomena had been observed in hypnosis. Yet, Lozanov's understanding of suggestion which is influenced by his long term research in this field is entirely different from other definitions of the term. As a result of misinterpretation and misunderstanding of the term, a number of applications of the method have arisen which do not reflect the true nature of Suggestopedia. In order to shed light into his understanding of the term, and how he came to this sense of meaning, it will be useful to examine some landmarks in his long term research.

2.19. Lozanov's Research into Suggestion

Lozanov's specialization in psychiatry, neurology, brain physiology, pedagogy and psychology, and his main interest in psychotherapy constitute the scientific basis of his studies in suggestion and its application to the educational process. As a scientist, researcher, a believer of man's reserve capacities, Lozanov investigated all possibilities as a means to improve the potential for memory and the capacities of man through his/her harmonious and free development.

To begin with, one strand of evidence for the rich capacity of man came from an extraordinary phenomenon that he witnessed in his psychotherapeutic practice: hypermnesia, that is, exceptionally strong memory of the past associated with certain

mental illnesses. In an attempt to understand the nature of hypermnesia, he carried out some hypnotic experiments. He found that hypermnesia did not always occur in hypnosis, in some cases hypnosis could even decrease the memory capacities and damage the personality. “Hypnosis is mainly suppressing and changing the will, once people are hypnotized, they lose their will, and they become mechanical people” (personal communication with Lozanov, September 1, 2008). Soon he stopped working in the area of hypnosis and drew his attention towards “a spontaneously absorbed, non-traumatic, non-manipulative, non-commanding, non-programming, communicative, soft, tender, suggestion”.

The event that he experienced with one of his patients in 1955 during his clinical work opened an important door into the unused, hidden reserves of the mind which further led him to came to the conclusion that “there is a safe, non-hypnotic way to enormous potential capacities for accelerated harmonious development, capacities that are locked within us” (Lozanov, 2009, p.32). His patient was an arc welder who had to memorize a Russian poem for his evening class. Although the man heard the poem once in the class, he was able to recall the whole of it without a mistake after his consultation with Lozanov. At the time Lozanov thought that the result might have originated from “involuntarily suggestions”, but many years of research showed him that it was the consequence of “a quite normal, spontaneous, desuggestive, communication” (Lozanov, 2009, p.32). In order to strengthen his assumption, he continued to perform a number of experiments based on a “communicative, soft, tender suggestion without hypnosis” instead of a “dictating, dominating one”. His experiments to increase the capacity of memory by suggestion in a waking state showed that “suggestion, non-manipulative communicative suggestion, in a normal state of vigilance, is in itself sufficient to improve memory, and neither sleep nor hypnosis is needed” (Lozanov, 2009, p.25). Despite the fact that his understanding of suggestion was far from its use in clinical contexts, he had to use the term “suggestion” as one of underlying concepts in his methodology due to the scarcity of the terminology in this field.

From Lozanov’s point of view, suggestion is a communicative event that shows its influence in every sphere of life. It is a universal communicative factor which

plays its role in every moment of our lives, though not always in an organized manner. To make this point, Lozanov states:

> Everything around us is suggestive. The nature, the sea, the mountain, the singing bird, going to the concert, the theater, the exhibition provoke in us feelings. The dirty, crowded city provokes another feeling. Everything around us is suggestive, not only around us, but in us also. (personal communication with Lozanov, September 1, 2008)

Other evidence concerning man's rich capacity comes from Lozanov's investigations and experiments on yogis - people with paranormal abilities and people with unusual capabilities - who had personally learned to tap into the reserves of their minds. Combined with his practice in the area of hypnosis, this research into unusual abilities of man influenced his understanding of suggestion. From these experiments, a number of laws emerged. One striking law was: "Nothing is lost of past-life experience."

As a result of his investigations both in clinical and educational settings, Lozanov (2009) concludes that "the potential abilities of the personality, the brain and the mind reserves could be accessed in every individual, provided the appropriate methods were used" (p.26). In this process, the role played by a highly reliable teacher is of utmost significance.

2.20. Non-specific Communicative Means (Means of Suggestion)

The means of suggestion are classified into two groups: the first group is composed of the dual plane, intonation, and rhythm of speech (which are also considered as elements of the dual plane). The second group of factors include: credibility (the prestige, reliability of the source of information), infantilization, and pseudopassivity (concert state).

2.20.1. The Dual Plane

We receive countless stimuli from the environment either consciously or unconsciously. According to Lozanov, conscious stimuli refer to the first plane of communication. The second plane of communication, on the other hand, refers to the

peripheral stimuli such as intonation, gestures, facial expression, and stance delivered through the conscious stimuli.

In Suggestopedia/Reservopedia, second plane communication is deliberately used in order to "build up authority on first sight, to win over students, or to inspire confidence". Therefore, teacher's knowledge of double plane communication is crucial, otherwise, suggestion results in failure. "Teachers exert an influence on the students not only with what they say, but also with the intonation of their voices, their smiles, gestures, clothes, movements and their whole attitude toward the pupils" (Lozanov, 1978, p.2). In order for suggestion to be effective, what is said and how it is said should not be contradictory because "only when there is sincerity can double planeness be mastered" (Lozanov, 1978, p.194).

2.20.2. Intonation

It is one of the elements of double-plane communication which is thought to contribute to the suggestive process. In the Suggestopedic/Reservopedic system, it does not refer to "artificial, ordinary intonation", but to "an artistic one". It is important because "when a suggestion is put forward, the intonation in the voice makes whatever it is sound significant. At the same time, it convinces us of the authoritativeness of the source of information. It also helps achieve double planeness in behavior" (Lozanov, 1978, p.195).

Intonation, as a factor, may not result in a suggestive atmosphere or increase the chance of liberating the reserves of the mind. In order to understand the effect of intonation on students, a number of experiments were carried out using types of intonation. Based on the results of the experiments, it was concluded that artificial intonation had to be discarded and artistic intonation which was more acceptable to students had to be retained.

2.20.3. Rhythm

According to Lozanov (1978) rhythm is in every sphere of life:

> Rhythm is a basic biological principle, a reflection of the rhythms in nature. There are daily rhythms, seasonal rhythms, and annual rhythms, affective vegetative reactions, and, hence, mental life. There are also many cosmic rhythms affecting personality…Rhythm finds empiric application in various

> spheres of life. Suggestive effects in medicine, commercial advertisement, pedagogical practice, and other spheres are most often presented rhythmically. (p.196)

Intonation cannot be separated from rhythm, and it maximizes its effect when the material to be learned is introduced in a rhythmical manner. "The rhythmical, correct intonational presentation of a program ensures a high degree of durable memorization" (Lozanov, 1978, pp. 196-197).

2.20.4. Credibility (prestige and reliability of the source of information)

In Suggestopedia/Reservopedia credibility is used to mean authority, prestige and reliability of the source of information. It is assumed that in the presence of a highly credible and prestigious teacher an atmosphere of confidence is created. For this reason, the role of the prestigious teacher is of great importance in the desuggestive-suggestive process. According to Lozanov, there are various types of prestige: of personality, of sound logic, of the beauty found in great works of art.

In order to shed light on the role of the prestige in memorization, some experiments were carried out in some Bulgarian schools. A list of words were chosen from different poems and presented to two groups of students. One of the groups was told that the words were taken from the poetry of an important Bulgarian poet. The other group was not informed about the source of the words. Then, students were asked to write the words they remembered. While the group who was informed about the source of information memorized 532 words, the latter could memorize 245 words.

Research showed that in the presence of a highly prestigious teacher, students' creativity could be enhanced, even "in some cases can be kept as high as when the whole complex of suggestive means is employed" (Lozanov, 1978, p.190). "There is no Suggestopedia/Reservopedia without prestige. Prestige can create prestige" (Lozanov, 2009, p.55).

2.20.5. Infantilization

In Lozanov's term the concept of infantilization refers to a state of mind experienced during childhood, replacement of the existing setup of an adult by a new one closer to a child's set up - a set up of confidence, a feeling of peace and security.

We all know that children learn faster than adults. What is more important is they learn without strain and much effort. With the advance of age, as we develop reasoning skills, our memory and power of imagination begin to weaken. At the same time due to the influence of the environment, a conviction about our limited capacity develops. In a Suggestopedic/Reservopedic class, the presence of a prestigious teacher is assumed to create confidence in students. This, in turn, creates a state in which students' perception, memorization, and creativity level increases. This is how infantilization occurs in the system. Infantilization creates conditions for desuggestive-suggestive process and for overcoming anti-suggestive barriers. There are various ways for creating a state of infantilization such as games, songs, and giving students new identities.

2.20.6. Pseudo-passivity (concert state)

Pseudo-passivity refers to "concentrative self-relaxation", "internal superactivity accompanied by the economizing of energy". This can be compared to children's stress-free learning state. Lozanov (1978) describes this state as follows:

> Pseudopassiveness requires the setup of a serene, confident attitude toward the suggestive program being presented, and to be in the same state of mind as one would be in attending a concert. The listeners are behaviorally passive and make no intellectual efforts to memorize or understand, they allow themselves to apprehend the program of music emotionally. The physical and intellectual behavioral passiveness is not real passiveness because, at the same time, as the music is apprehended, complicated internal processes take place, moods originate, associations emerge in the mind and ideas occur to one. All this is not tiring in the physically and intellectually passive climate. On the basis of such passive pseudopassiveness (concert state) with a built up setup for hypermnesia, the antisuggestive barriers are much more easily overcome and the reserve capacities of the mind are released. (p.198)

2.21. Suggestology

Suggestology, based on the means of suggestion, is the science of suggestion. In this science man is seen as a product of the natural and social environment which

imposes habits, conducts, and attitudes to people mostly at an unconscious level. One goal of Suggestology is to identify stimuli, how and when they affect us positively or negatively. “Only then, if society ever does find the strength and power to define them, will the development of the personality be organized on constructive, scientific bases” (Lozanov, 1978, p.53).

2.21.1. Aims of Suggestology

The science of Suggestology has been developed for the following aims:

1. To demonstrate that human personality possesses potential capabilities far exceeding those recognized by generally accepted social norms;
2. To analyze the extent to which various documented individual achievements, demonstrating the use of potential reserves can be expected from all or most members of society;
3. To promote interest in the search for methods capable of releasing the unused potential reserves of the brain/mind

2.21.2. Principles of Suggestology

Lozanov cites three principles of Suggestology:

1. Interpersonal communication is always global and simultaneously conscious and unconscious.
2. All stimuli are associated, coded and symbolized and generalized.

   By associated Lozanov means that all stimuli exist in a context. Nothing is isolated… Coded means that the stimuli are condensed for easier storage in memory… By symbolized Lozanov means that a stimulus is a symbol for the whole picture. The stimulus will trigger off a world in the mind of the perceiver, and this world will be different for each individual…The symbolic is the highest level. That level is the philosophy of the world. (Tarr, 1995, p.22)

3. All stimuli are complex. To explain this principle, Tarr (1995) states that;

   We accept all stimuli as complex in our brains, complex because no one knows what a given individual’s response will be to a given stimulus. This notion, Lozanov explains, is very different from the thinking of the behaviorists who believe in stimulus-response: there is one possible

> response for each stimulus. In Lozanov's view a given stimulus will elicit one response in one student and very possibly a completely different response in another student. (p.22)

2.22. Inception and Evolution of Suggestopedia

2.22.1. Definition of Suggestopedia (Suggestopedy, Suggestopaedia)

Basically, Suggestopedia (Suggestopedy, Suggestopaedia) is the application of Suggestology in the process of instruction. "Suggestopedy is a medically oriented, psychohygienic method of teaching and learning" (Lozanov & Gateva, 1988, p.17).

The term Suggestopedia is composed of two words: suggesto and paedy. To reiterate, etymologically, the word "suggest" comes from Latin verb *suggero, suggesi* and *suggestum*. The word "paedy" is related to pedagogy which is directly linked to the process of teaching, learning, and education. Suggestopedia in this sense is the process of education and instruction congruent with the principles of Suggestology, the science of suggestion. "Suggestopedy is not only a trend in pedagogy, but an experimental method for Suggestology as well" (Lozanov, 1978, p. 13).

Due to the lack of a stable meaning of the word, the name of the method caused some misunderstandings. In essence, Suggestopedia involves the removal of negative, limiting barriers to learning through a change of mind. With this new change of mind or setup, students develop a new understanding of their potential, and they are expected to take risks courageously to challenge their imposed limitations.

Through Suggestopedia, other school subjects such as Mathematics, Geography, History, Reading and Writing to small children can be taught effectively. Lozanov points out that "Suggestopedia is not a linguistic method only, but a method for everything, the method for another kind of communication - the soft communication elaborated on the basis of my integral psychotherapy" (personal communication with Lozanov, September 1, 2008).

Lozanov's integral psychotherapy model involves different forms of communicative methods "ranging from the prestigious and delicate explanation of the psychotherapist to the spontaneous abreaction, and excluded the method of Jung, Freud as well as commanding clinical suggestion and hypnosis" (Lozanov, 2009, p.44).

Suggestion exists in every communicative event. Since classrooms are rich communicative contexts, in Suggestopedia, suggestion is presented in an organized and deliberate fashion without any kind of manipulation, and the students are free to choose or reject it. Due to the fact that the method provides ease for higher retention of the information in long term, one important result of Suggestopedia is the establishment of new laws for human memory. "Suggestopedy, as an experimental method of Suggestology, has revealed new laws and patterns of human memory" (Lozanov, 1978, p.6).

2.22.2. Origins of Suggestopedia

Lozanov (2009) states that "Suggestopedia originated in the context of our medical-psycho-therapeutic practice, where we first witnessed manifestation of hypermnesia" (p.17). By transferring his experience of suggestion from the clinical setting to the educational context, Lozanov draws attention to the role that suggestion plays in the teaching and learning process. To that end, he formulated concepts, laws, aims, principles, and means for his system which he called Suggestopedia.

Lozanov established Suggestopedia as "a method for experimental research" in order to look into the aspects of suggestion, paraconsciousness, memory, creative processes, and the reserves of the mind. With regard to the origins of the method Lozanov (1978) expounds the following:

> Suggestopedy started purely as a psychological experiment aimed at increasing memory capacities in the educational process. This experiment, however, opened the way for a new trend in pedagogical practice. Suggestopedy gradually developed into a method for experimental study of suggestion itself, to determine its basic components, specific features, and laws. (p.5)

2.22.3. Historical Development of Suggestopedia

2.22.3.1. The 1965 Experiment

In order to explore the problems arising from teaching foreign languages through the Suggestopedic system, in 1965 a research group was formed at the State Pedagogy Research Institute in Bulgaria. In the same year, experimental Suggestopedic French and English courses started. 75 students participated in this experiment. 6 groups

were formed, 3 experimental and 3 control groups. Each teacher taught two groups: an experimental and a control group. All the groups were given the same amount of material. While the experimental groups were taught Suggestopedically, the control groups were taught by conventional methods. Soon the control groups could not catch up with the program. They became tired, annoyed, and complained about the burden of the program. As a result of this, the control groups wanted to leave the course. On the contrary, experimental groups learnt rapidly without stress. Once the control group began to be trained Suggestopedically, they reached the same level as the experimental groups. The promising results of the experiment led to the establishment of a "Suggestopedic Research Section" at the Institute of Pedagogy.

2.22.3.2. The 1966 Experiment

The experiment was conducted at Sofia University with 14 students, aged 25-60 who were learning French after work. The students were asked how many words they learned each day in the conventional method (the answer was 20 to 30 words), they were told that they could learn 1000 new words with the Suggestopedic method. Although the students did not seem to have believed in memorizing 1000 words in a single day, the teacher believed that the experiment would result in success and reflected it with her overall behavior. After the unknown 1000 French words had been chosen together with the students, the following day the teacher began to read the words with different intonations in order not to cause hypnosis. "Consequently, the average memorization of the given 1000 words was 98.09%. Thus, we can assume with p=0.95 that this figure will not fall below 90.69% under the same conditions" (Lozanov, 2009, p. 43).

The high results of this memorization experiment opened a new door for further experiments. "On the basis of those results the methodology of spontaneously absorbed, non-manipulative suggestion in teaching not only languages, but consequently all subjects started its development" (Lozanov, 2009, p.43). On October, 6, 1966, the first State Suggestology Research Center was set up in Bulgaria. It was responsible for developing the Suggestopedic system of teaching and learning, and of investigating paraconscious mental activity as well as physiology of suggestion.

2.22.4. Evolution of the Suggestopedic Foreign Language System

In order to find the best possible ways for improving memory and for revealing the hidden, unused, dormant reserves of mind through one's free and harmonious development, Lozanov performed hundreds of experiments on thousands of people. As stated earlier, this is a method created for an experimental research. Every single element in the method was tested before it was incorporated into the global. Based on the results of the experiments, effective and ineffective elements were determined. "In the numerous experimental variants, the details of the Suggestopedic session have been worked out and fixed" (Lozanov, 1978, p.268). The continuous experimentation led to the emergence of so many different interpretations of the method. Lozanov (2009) accounts for the existence of different interpretations of the method as follows:

> The methods were continuously improved. Many versions tested. Dozens of books were written. Journalists from all over the world came. Everyone saw one version of the experiment and decided on that basis that it had found the secret. Thus, without our knowledge, some of the most inconceivable versions were published as ours and distributed all over the world. (p.47)

Lozanov's observations in his psychotherapeutic work and early memorization experiments opened the way for the development of the Suggestopedic/Reservopedic methodology. The method evolved, transformed in the process of his investigations, the spirit of the method remained the same, though. In order to get an insight into how the method evolved through the time, it will be useful to have a look at the Suggestopedic/Reservopedic teaching cycle of the method chronologically.

In his book *Suggestology and Outlines of Suggestopedia,* Lozanov (1978) explains that initially the Suggestopedic session contained an "active part" and a "passive" or "concert part". In the active part, the new words were read by the teacher through a three-stage intonation. In the concert part, the new words were read quietly with the accompaniment of pre-classical or classical music playing in the background.

In this variant, students were trained in the muscle relaxation in the passive part, which was later discarded and "only the concert part is retained with the students in a state of mental pseudopassivity as they would be at a concert" (Lozanov, 1978, p.269). The active part was also eliminated because it did not create effective results.

The use of monotonous sounds and dim light were also removed as they led to hypnosis.

Lozanov introduces the three phases of the Suggestopedic lesson in a foreign language in the same book: the pre-session phase, the session phase, and the post session phase.

2.22.4.1. The pre-session phase

This is the first encounter of the students with the new material which lasts 90 minutes. The organization of this stage helps to create a positive setup of the reserve complex. An important part of the material is assumed to be memorized during this phase. In this stage the teacher explains the new material and deciphers the dialog. This stage creates positive emotions in the students through the teacher's suggestions that learning is pleasant and easy. It is characterized by the following stages: fixation (repeating), reproduction (creative usage), and new creative production (linking the material with the already learned).

2.22.4.2. The session phase

It takes 45 minutes, and with it the first day of the cycle finishes. This is a concert session of two parts. In the first part, the teacher listening to the music in the background starts reading in harmony with the music. The students follow the text with its mother tongue translation. The first part is followed by a few minutes silence. The students are not allowed to look at their textbooks; they just listen to the teacher's reading. When the music is over, the students silently leave the room. They are not assigned homework except for skimming the text for a few minutes before they go to bed and when they get up in the morning.

2.22.4.3. The post session phase

This part contains several elaborations of the material such as the primary elaboration and the secondary elaboration.

The primary elaboration

It can be described as "a transition stage of creative transformation of the new material and of its use in practice" (Lozanov, 1978, p.272). It is composed of imitation of the text, questions, answers, and reading.

The secondary elaboration

It is performed in the first periods of the second day. This is an activation stage where students are able to make new combinations and new creative productions. This stage comprises listening to new piece of music, an extra text, a monologue, conversations on given themes, role-plays, grammar points presented in interesting stories. "In the general emotional stir caused by the play-acting, the language side of the lesson is forgotten, and the students use the phrases heard in the session without searching their minds for them or analyzing them" (Lozanov, 1978, p.273).

In the middle of the course students are provided with real life situations in which they are encouraged to speak the target language. The last day of the lesson comprises a performance in which every student participates. The students are asked to create an interesting story covering all the lexical items and grammar points in the lesson.

Lozanov (1978) states that "the pre-session phase, the session phase and the post-session phase stand out in the basic high relief picture of the Suggestopedic foreign language course" (pp.273-274).

In the course of time, after hundreds of experiments the method evolved. The changes were reflected in the book *The Foreign Language Teacher's Suggestopedic Manual* (1988) written by Lozanov and Gateva. The authors describe three stages of the Suggestopedic cycle: introduction, concert session (active concert session, pseudopassive concert session) and elaboration.

2.22.4.4. Introduction

Each presentation of new subject matter commences with introducing it, the first lesson always is the largest. The introduction in the first lesson lasts about 20-30 minutes, and in the subsequent lessons it does not last more than 15 minutes. It gets shorter in the following lessons in order not to keep the teaching on a conscious level, whose effect is thought to be undesirable. "The introduction is so short emotionally and

so condensed logically, coded and algorithmed in such a way the essence of lexis and grammar stipulated to underlie a Suggestopedic lesson is presented in the most synthetic form" (Lozanov & Gateva, 1988, p.28).

The introduction in the first lesson is the teacher's first meeting with the students as well as students' first contact with the subject matter. The first contact is organized to create a positive setup. The organization of this first contact of the first introduction is characterized by "the expectation, the surprise, the novelty, the extraordinary, at the same time convincing and logically satisfying organization". The teacher's first encounter with the students is expected to create dynamism, warmth, and easiness. "The teacher embraces whole students skillfully in order to successfully tap the reserve capacities of the individuals for whom s/he will lead the way toward self-education" (Lozanov & Gateva, 1988, p.28).

In this stage, the teacher provides students with "an imaginary autobiography". Every student is invited to this stage where they choose a nationality and a name in the target language. The artistically prepared grammatical posters should be hung on the walls so that students can perceive them "peripherally". In the following lessons, these peripherals should be hung on the wall 2-3 days before a new lesson begins. The teacher can draw students' attention towards them if it is needed. As the course progresses, the use of such posters should be reduced.

2.22.4.5. Concert Sessions

Active Concert Session

The compositions for this session have "an emotional tone with a rich melody and harmony". The teacher assuming "a solemn attitude" waits until the end of the introductory movement of the music. After this part ends, the teacher begins reading by modifying his or her intonation according to the music as if his or her voice were a new instrument. Reading in harmony is important as it further facilitates easier memorization and reproduction.

The reading should be slow and rhythmical with good diction. The teacher reads the important lexical and grammatical points with a different intonation from the rest. During reading the teacher should observe students through "a glance or a gesture".

The active session should not be more than 45-50 minutes except for the first concert session.

Pseudopassive Concert Session

The compositions for this session have an "austerity of form and content with intellectual depth". The teacher takes a seat in a comfortable, calm, and relaxed manner. The reading pace is normal, like everyday speech, but is not devoid of emotional tone. The function of the music is for relaxation, and it is "as loud as at a real concert". When the two concert sessions - acme of the ritual cycle – finish, the first day comes to an end.

2.22.4.6. Elaborations

First Day after the Concert Session

In this phase, the text is divided into some parts. The first reading is done in chorus. The students read the parts in the target language and are allowed to have a look at the translation of the text. If needed phonetic explanations can be made immediately, the verb can be conjugated together with the students by drawing their attention to the verbs in the peripherals. When the assigned part is read, the translation is taken away or closed, and that part is translated by the students. The mistakes are corrected implicitly. After the translation is completed, some points bearing lexical and grammatical significance are acted out through games, songs, or dances. If the given part cannot be finished in one day, it can be left to the next day. In the following days, translation is only made through the use of synonyms in the foreign language.

Second Day after the Session

In the following day, the students will study a text which includes a summary of the most important lexical and grammatical units in the dialogue. This time the story is not in the form of a dialogue but in direct and indirect speech. The story provides an example for students to tell a story of their own, relevant to their imaginary identities. The stories are short at the beginning, but according to the progress of the students, they can be longer and more detailed. Apart from the text, games, and songs of educational and artistic value should be included in the secondary elaboration.

The Third Day after the Session

In this stage, students are encouraged to tell their stories. The teacher should inspire the students to take part in general conversation about their everyday life. When the cycle is completed, the following unit is taught in the same manner.

2.23. Suggestology/Suggestopedia, Desuggestology/Desuggestopedia, Reservology/ Reservopedia

In the latest variant of the method, Lozanov puts emphasis on the terms Desuggestology, Desuggestopedia, Reservology, and Reservopedia. He adds, however, that this does not mean the rejection of the terms Suggestology and Suggestopedia.

Since the words begins with the prefix *de-*, Desuggestology and Desuggestopedia refers to "de-programming, de-suggesting" from the negative conditions imposed on us by our environment. With the use of these terms Suggestopedia becomes a desuggestive pedagogy, pedagogy of the hidden reserves of the mind. By "Reservology" he refers to a science, involving the science of suggestion and desuggestion. In relation to the essence of Reservopedia, Lozanov (2009) explains:

> The essential emphasis is on real humanization of teaching-learning, and on the friendly relationships on the group which raises hopes for a new societal culture. Without these new humanistic interrelations, there are no new superior results. This is a positive trap of nature. The release of the Suggestopedic reserve complex can be achieved only if there is LOVE for the human being. (p.13)

In the latest development of the method more attention is paid to the scientific data on the reserves of the mind rather than evidence coming from mysterious accomplishments of some ancient civilizations or the information based on various religious, occult groups and yoga schools.

2.24. The Current State of Teaching through Suggestopedia/Reservopedia

In his latest book *Suggestopedia/Reservopedia* (2009), Lozanov cites a-four stage of the Suggestopedic cycle: introduction, the concert sessions, elaborations, and performance. With regard to changes Lozanov (2009) states:

> In the latest development of Reservopedia, many aspects of the structure of our original method of foreign language teaching for adults have been retained. The global aesthetic component continues to be of great importance in textbooks, materials, games, classrooms because aesthetic is a teaching, healing, and personality harmonizing factor in the whole method. But, considerable changes have been made in the communicative relationship between the teacher and the student… The fourth stage has been separated from the previous third stage because it assumes an increasing independence and self-confidence in the students. (Lozanov, 2009, pp.147-148)

After the recent changes are introduced into the method, the previous and current states of each stage of the method will be discussed below to give a better understanding. The introduction stage is the first to be discussed.

2.24.1. Introduction

Previously, the teacher whose attention was partly focused on the students' weakness was more like an actor/actress on a stage in front of the audience. This put the teacher on a higher level of communication and the students on a lower level. Due to this, the teacher usually encountered opposition from students.

In the current state of the introduction stage, the teacher who behaves like an old good friend from the past is at the same level as the students. This type of communication produces a calm atmosphere, and this, in turn, helps reduce students' level of anxiety. "The teacher establishes a communicative set-up which ensures that the classroom is a safe-haven for free-flowing communication" (Lozanov, 2009, p. 149).

The teacher is not an actor/actress, a director or a conductor, but a person who should have the qualities of these people, but should not behave as an actor/actress or a conductor. The classroom should not be viewed as a stage. Students' participation is encouraged and together with the teacher, they become "the co-creators" of this stage.

The teacher encourages students to “communicate more and imitate less than the earlier variant of the method” (Lozanov, 2009, p.151).

One difference in the current state of the method lies in the way the introduction and concert sessions are viewed. Previously, both of them were treated as “separate entities”. Today, with a continuous flow to the concert sessions, introduction is not considered only as an introduction to the lesson but as an introduction to the session. According to Lozanov (2009), the purposes of such an introduction are

- to create an immediately warm, joking, calm, friendly atmosphere,
- to show the students that it is very easy for them to communicate in the foreign language, which is very important to the development of the course,
- to help them realize that learning will not be a hard and unpleasant experience but just the opposite an easy and pleasant one,
- to help the teacher to master the global way of thinking and presenting the most important lexical and grammar units to be acquired in the according theme. (pp.151-152)

2.24.2. The Concert Sessions

The introduction stage is followed by the active and passive concert sessions. It is thought that concert sessions make it possible to teach a great bulk of information without exhausting students. One important rule to follow is that the sessions must never be separated.

In the latest variant of the methodology, one novelty is in the active concert session in which the teacher sometimes invites the students to participate in the reading of the text. Previously, the students were not invited to read the text. Rather, the teacher behaved as if s/he had been on the stage reading to the audience.

The active session is important as it helps to create emotions and thus facilitates the assimilation of the material. Both sessions have preserved their form as it was described in the *Foreign Language Teacher’s Suggestopedic Manual*. Some minor changes have been made in terms of the way they are conducted.

2.24.3. Elaboration

The elaboration stage which aims to activate the material presented in the previous day comes after the first day of the course. This stage commences with a song

and finishes with a song every day. The first meeting of the teacher and students starts with a game as the teacher offers students to play in a film that s/he is going to direct. In the elaboration stage, students play their roles as well as being presented with various games, jokes, songs and spontaneous laughter system. These elements, bearing artistic, didactic and psychotherapeutic value, do not aim entertainment and relaxation as "relaxation comes as a by-product". Lozanov (2009) expounds the requirements of the new focus of the elaboration as follows:

1. The freedom and creativity of the students are encouraged even more than previously.
2. All the stages of Reservopedia are unified during the elaboration through the use of intonations, songs, the play etc. reminding the students of early stages.
3. The teacher continues to keep the students on the border of their linguistic knowledge. This means he/she speaks to them at a linguistic level always a little beyond their present knowledge and skill level. (p.160)

2.24.4. Performance

This is the last stage of the Suggestopedic cycle in which the most important points are reviewed. In this stage, students are asked to deal with more free, spontaneous, and creative language use. The class starts with a monologue and then turns into a dialogue.

This latest variant of the method was developed through Lozanov's collaboration with Evelina Gateva. Today, it has taken its final form with slight modifications.

The review of literature presented so far reveals that some changes have been made in Suggestopedia since its inception. Although the spirit of the methodology has always been the same, findings obtained from the experiments, observations, and research enabled the developers of the method - Lozanov and Gateva - to discard the provenly less effective elements and to reshape the outer form of the method accordingly. In other words, the method evolved over time just like any sound theory which is based on scientific findings. In the case of Suggestopedia/Reservopedia, as the

method is based on research primarily on the working of the human brain, this development and refinement became possible.

2.25. The Principles of Suggestopedia

Lozanov cites three fundamental principles of the method:

1) Joy, absence of tension, and concentrative psycho-relaxation.

This principle entails a joyful freedom, a mentally relaxed state in the teaching and learning process. When this principle is not followed, "all muscles are strained in order to aid the brain. When this principle is observed, the student will have confidence in his own abilities… Observance of this principle makes 'teaching students how to learn' imperative for the teacher" (Lozanov, 1978, pp. 258-259).

2) Unity of the conscious and the paraconscious and the integral brain activity.

This principle requires the organization of the lesson in such a way as to activate the conscious and paraconscious functions at the same time, as well as the activation of the two hemispheres of the brain, the cortex and the subcortex in the process of learning.

3) The suggestive link on the level of the reserve complex.

This principle requires the organization of the educational practice on the reserves of the human brain.

These three principles are not independent of each other. Lozanov (1978) notes that "the isolated observance of these principles does not lead to the creation of a new suggestive form for the student's capacities. On the contrary, the old social norm is reinforced and fixed" (p.260).

2.26. The Seven Laws of Suggestopedia/Reservopedia (Condicio Sine Qua Non)

In order to increase students' memory potential and to reveal the hidden reserves of the mind, all possibilities of the non-manipulative type of suggestion are used in Suggestopedia/Reservopedia. The application of this type of suggestion in the educational contexts led Lozanov to formulate "the seven indispensible laws" which should be respected in every Suggestopedic/Reservopedic system. It is assumed that

these seven laws could help reveal the hidden reserves of the mind only in the presence of a highly prestigious teacher.

2.26.1. The First Law of Reservopedia: Love

In the method love is a significant factor to attain the reserves of the mind. If the teacher does not love human beings, s/he should not work at the levels of the reserves. “Love creates serenity, trust, and contributes to the prestige of the teacher in the eyes of the students, and, thus opens the ways of tapping the reserves in the personality’s paraconsciousness” (Lozanov, 2009, p. 56).

Lozanov’s understanding of love can be compared to love of a mother or of a father teaching the child “how to ride a bicycle without the child being able to tell at each moment whether the parent is holding the bicycle from behind or not” (Lozanov, 2009, p.56). Lozanov refers to this as “the bicycle principle”.

Similarly, students in the classroom should not usually be aware of the teacher’s support. In this way, a sense of feeling is created in students, and they think that they achieve everything on their own. “Thus realized, this friendly interaction or love could help to reveal the personality’s universal reserve capacities and stimulate its creativity” (Lozanov, 2009, p.83).

2.26.2. The Second Law of Reservopedia: Freedom

At the heart of the law of love lies freedom. With this law, the difference between Reservopedia and other hypnotic methods becomes obvious. Students are free to choose, to participate in some activities such as a game, a song that may not be congruent with their personality, or to go out of the class without disturbing the flow of the lesson. Freedom is not imposed by the teacher; it is created spontaneously.

2.26.3. The Third Law of Reservopedia: Conviction of the Teacher that Something Unusual is Taking Place

This law is related to the teacher’s positive expectancy that something unusual is taking place. From the very beginning, the teacher should believe in his or her ability to reveal the reserves of the learners’ minds and the learners’ capacity to learn at the levels of the reserves. “A subject’s performance of an intellectual task may be unintentionally determined by the prophecy of the examiner” (Rosenthal & Jacobson,

1968, p.35). The state is communicated to students through the teacher's verbal and non-verbal communication. Once the students receive the teacher's positive messages, it is thought that the suggestive relationship at the level of the reserve complex is established.

2.26.4. The Fourth Law of Reservopedia: Manifold Increase of Input Volume

The material presented in the Suggestopedic/Reservopedic class for a given period must be at least two to three times more voluminous than any other methodology. In addition to this, students are expected to absorb the material five to ten times faster with positive effects on health. For example, a one month of foreign language teaching for beginners is composed of 2000-2500 lexical units. "If, in the reservopedic framework, the study is kept within the traditional boundaries, it will only confirm and reinforce the suggestive social norm about the limited capacity of the human being" (Lozanov, 2009, p. 59). In other words, by providing students with "large material" at the onset of the class, students are suggested having great capacity to learn.

2.26.5. The Fifth Law of Reservopedia: Global-Partial, Partial-Global, Partial through Global

In Suggestopedia/Reservopedia, the elements and the whole are integral. Elements should not be learnt in isolation because they are always parts of the whole. "For instance, grammar and words, etc., do not exist separately from the language; they are part of the discourse. Each global is part of a bigger global, and, thus, it goes to infinity" (Lozanov, 2009, p. 59).

This law is based on research on the functioning of the brain which states that the components of the brain possess information about the whole brain. This law is evident in each stage of the method. Lozanov (2009) notes that "in all the stages, the introduction, the concert sessions, the elaboration and the performance the study material is always presented and developed in such a way that the element and its whole are always kept in unity" (p.68).

2.26.6. The Sixth Law of Reservopedia: The Golden Proportion

The principle of the golden proportion, which is also referred to as the golden mean or the golden section has been considered to be the most perfect proportion in the

universe. It took place for the first time in the work of Euclid in the third century B.C.. It has attracted the attention of many philosophers, scientists and architects since then. As a law of harmony, it is everywhere in nature, in cosmos, in the dimensions of the Egyptian pyramids, in the size of paintings, in architecture, in the human body, and in the proportions of flowers and trees. Dozci (1981) defines this concept as follows:

> Expressed in equation form A : B = B (A+B). This is the formula of the celebrated golden section, a uniquely reciprocal relationship between two unequal parts of a whole, in which the small part stands in the same proportion to the large part as the large part stands to the whole…On any given line there is only one point that will bisect it into two unequal parts in this uniquely reciprocal fashion, and this one point is called the point of golden section….The two parts of the golden section's proportions are unequal: one is smaller, the other larger. They are often referred to as minor and major. Minor and major here are opposites united in a harmonious proportions…the union of complementary opposites, Sun and Moon, male and female, positive and negative electricity, Yin and Yang has been since ancient times an important concept in mythologies and mystery religions. (pp. 2-3)

The golden proportion is a very powerful component of Suggestopedia/ Reservopedia, and it is deliberately used throughout the whole teaching process. In the system, the relations among the parts and the whole are always in a golden proportion. It is thought that it is the use of golden proportion that prevents fatigue, thus, making it possible to learn a large amount of material in a very short span of time. "If the golden proportion is not respected, student and teacher feel tired. The slightest sign for such a state should be the signal for the teacher to change and to re-establish the harmony in the process of teaching and learning" (Lozanov, 2009, p. 82).

Lozanov and Gateva (1988) view the application of this law as the measure of the teacher's mastery:

> That is where the teacher's mastery lies: to be able to conduct with precision the transition between the three tempi of work: fast, slow, moderate; to introduce light and shade in the dynamism: high, low, medium; to fix the duration of these stages according to the rules of the golden section. (p. 28)

The golden proportion is applied in the concert sessions. To illustrate, the active concert session for the first lesson in English lasts 50 minutes, and the passive concert session lasts 30 minutes. When we analyze the ratios between the sessions what we get is 30:50= 0.6, which indicates the golden proportion.

2.26.7. The Seventh Law of Reservopedia: Use of Classical Art and Aesthetics

The use of art and aesthetics is of significant value in Suggestopedia/ Reservopedia as it is assumed to facilitate the process of teaching and learning. Lozanov (2009) states:

> Reservopedic art creates conditions for optimal psycho-relaxation and harmonious states which help create a spontaneously increased acquisition state and enhance the capacity to tap the reserves of the mind in a pleasant atmosphere. It aids reaching the state of inspiration and diverts the attention "from the ill place" where there is fear associated with learning. (p. 61)

2.27. The Means of Suggestopedia

Drawing on the brain/mind functioning and the seven laws of Suggestopedia/ Reservopedia, three means are described: psychological means, didactic means, and artistic means.

Psychological means are related to the overall organization of the teaching-learning process. The important point is the organization of the peripheral perception in a "stimulating way" rather than in an "illustrative way":

> It does not have to be overwhelmingly embellished. A moderately arranged classroom interior is often much more pleasing and acceptable for the student than an obviously intentionally decorated room full of unnecessary trinkets and gadgets. It is important to have visual aids such as posters and charts done artistically and in good taste. (Lozanov, 2009, p.61)

Didactic means are related to the preparation of the instructional materials in accordance with the laws of Suggestopedia/Reservopedia, that is, the increased amount of material, meaningfulness in teaching, and direct and indirect presentation of the material. The teacher emphasizes communication as a whole; the teaching of pronunciation, vocabulary, and grammar remains on a second plane. Those are also

learned, but the teacher directs students' attention to them only for a short time and turns to the meaning of the whole sentence and situation. In other words, elements are learned through the whole, not in isolation.

Artistic means are related to the role that art plays in the teaching process. In Suggestopedia/Reservopedia, art is not utilized for the sake of entertainment. Rather, it is used as a liberating and stimulating power. The use of art is important as it creates a pleasant atmosphere and increases motivation and memorization of the material. With regard to the use of art in the method Lozanov (2009) expounds that "it is not a stage of illustration in the learning process, but is built into the contents of the lesson. It promotes the reservopedic psychological orchestration by introducing an abundance of harmonized peripheral perceptions on a second plane" (p.63). "There is Reservopedia without art, but such a Reservopedia is not needed. We need Reservopedia with beauty. That is why the application of art and aesthetics is a law, the seventh law of Reservopedia" (p.154).

2.28. The Place of Art and Aesthetics in Suggestopedia

Lozanov attaches great importance to the use of art in the suggestive process because it affects the mind and emotions. The artistic organization of the lesson creates conditions for concentrative psycho-relaxation, infantilization, and overcoming the anti-suggestive barriers. In this state, the reserve complex of the personality is revealed, and the two hemispheres of the brain are activated simultaneously. Gateva (1991) states that "the multi-leveled information offered by the artistic work is absorbed in a multi-tunneled way, and then re-structured, recoded, and re-associated in a multi-leveled way" (p.24).

Art, as a form of suggestion, was investigated by Evelyna Gateva, an important collaborator of Lozanov. With Gateva's contributions, Suggestopedia was enriched and became an artistic pedagogy. The artistic experiments started in 1971 in an organized program congruent to the principles of the psychology and the physiology of suggestion. The same year witnessed the integration of artistic-didactic songs created by Gateva herself into the structure of the Suggestopedic textbook and the lesson. The songs were created for artistic-didactic and psychotherapeutic purposes, not for entertainment or relaxation.

From 1971 to 1975 different works of preclassical, classical, romantic and contemporary music were experimented with in foreign language teaching and other subjects. In 1975 a musical program for the active session (Suggestopedic melodrama) and passive session (Suggestopedic musical recital) were formed in two parts. Since then, this program has been applied during the concert sessions in the teaching of foreign languages. Before this program was included in the methodology, hundreds of students all over the world were tested on the memorization of material presented with a concert session and without a concert session. The findings proved that it was during the concert session that the greatest part of the material was assimilated without stress and fatigue. Based on the findings, Gateva (1991) explains:

> In Suggestopedic practice it was confirmed experimentally and with statistical proof that a rhythmic and melodic text is memorized more easily than a non-rhythmic and non-melodic text. This strengthened the hypothesis that if interactions between speech and musical intonations are organized in a specific kind of art, synthesized with an increased volume of educational content, then the level of absorption of the new content would be increased. (p.43)

The introduction of the classical fine arts into the system began with the experiments on the Italian textbook "Beautiful and the Ancient". More than 150 reproductions of different painters and sculptors were studied to be used in the introduction and development of the lessons. The reproduction cards were given and are still being given to students as themes for conversation. These cards are taken by students to their homes in order to create their own stories related to the current-lexical grammatical theme. After hundreds of experiments, Suggestopedia has become a synthesis of many different forms of art and logic. Literature, music, dance, fine arts, and logic constitute the foundation of a Suggestopedic textbook.

Before Gateva's studies, Suggestopedia utilized some traditional forms of art borrowed from psychotherapy such as intonation of speech, and musical background for relaxation. Since such techniques were found to be in contradiction with the theory behind Suggestology, they were entirely discarded from the method. In essence, this is true for all the elements used in the Suggestopedia/Reservopedia. Every single element was tested first through experiments and then in practice before it was included in the system.

In relation to the transformation of Suggestopedia into an artistic pedagogy, Gateva (1991) explains in her book *Creating Wholeness Through Art,* where the principles of art used in the methodology were borrowed from:

> Suggestopedics borrows from the principles and the meaning of Greek theater, of the Greek masks, of Dionysus and Apollo celebrations, of the tragedies and the comedies…The ancient Greeks saw themselves as in a mirror, and they purified spirit and body (through art)… Through Suggestopedic art, with its psychotherapeutic aim, the catharsis concerns the students as well as the teachers. …The motivation to learn material, and the positive results from the reverse connection in the artistically organized educational training process, lead our attention away from "the sick place". Thus, the catharsis is achieved paraconsciously, and no unpleasant feelings are felt. (pp.64-65)

2.29. Paraconsciousness and Its Significance in Suggestopedia/Reservopedia

According to Lozanov "the self" is always integrated, our conscious and paraconscious sides always act together. "In general, it is just as impossible to separate conscious from paraconcious mental activity as it is to separate an illuminated object from its shadow" (Lozanov, 1978, p.158). From his perspective, man's reserve capacities can be revealed in the presence of the proper suggestive organization of the conscious-paraconscious functions. "Subsensory (or subliminal) reactions, if provoked by a specific system, can affect the ability to memorize despite the fact that the subjects do not realize their existence" (Lozanov, 1978, p.4). The reserve capacities take place in paraconsciousness, and this is the place where long term memory is.

Paraconsciousness goes beyond subsconsciousness and includes the following: peripheral perceptions, setup, habits, motivation, attitude, expectancy, needs, and instinctive tendencies, second plane of the communicative processes, unconscious forms of association, coding and symbolizing, creativity, intuition, and inspiration.

In Suggestopedia/Reservopedia, paraconsciousness is of significant value and many of its resources are used deliberately. For instance, through the use of peripheral stimuli, what is to be assimilated is transferred quickly to long term memory.

2.30. Social Suggestive Norm

The world we have created is a product of our thinking; it cannot be changed without changing our thinking. (Albert Einstein)

The notion of social suggestive norm refers to society's negative suggestions and suppressions that our potential is limited. Lozanov believes that as a result of this negative conditioning, we become "neurotically ill", "hypnotized souls". And when somebody challenges this, it is usually seen as "an exaggeration, a miracle or advertising". According to Lozanov, "nothing can be considered supernatural" (personal communication with Lozanov, September 1, 2008).

Suggestopedia/Reservopedia creates optimum conditions for students to replace their self-limiting belief system with a positive one. "This process may take hours, days, years, or centuries. Under the pressure of new realities, the belief system changes" (Lozanov, 2009, p.119).

2.30.1. Covert Didactogeny and Overt Didactogeny

Lozanov believes that "we humans are fallen angels, locked up gods" that have always believed in our incapability. As a result of the suppression of the society, we become ill. He describes two kinds of illnesses: overt didactogeny and covert didactogeny. Lozanov (1978) states that it is not difficult to diagnose overt didactogeny, "an illness caused by the damaging effect of school trauma when students are harassed and oppressed by the teacher to such a degree that a physician's intervention becomes necessary" (p.252). It is much more difficult to diagnose covert didactogeny. "Covert didactogeny which "manifests itself in bowing to the social suggestive norm in regard to the restricted capacities of students and to the maxim that knowledge is not easily come by" (Lozanov, 1978, p.252).

In order to prevent covert didactogeny, the role played by the teacher is extremely important. It is thought that a prestigious teacher with a strong belief in the potential and unused reserves of students and his/her well orchestration of the educational process in compliance with the principles, laws, and means, the Suggestopedic/Reservopedic system will lead to free and harmonious development of students.

2.30.2. Anti-Suggestive Barriers

Lozanov argues that suggestion exists in every communication, and we constantly receive information from our environment on many levels without realizing it. In order to protect ourselves from this flow of information, it needs to be filtered. If we accept all suggestions, our personality might be damaged. Lozanov believes that the anti-suggestive barriers act as the safeguards of personality. In the absence of these barriers, we would be subservient to any kind of suggestion. This, in turn, would lead to psychological and physical illnesses. These barriers scrutinize all suggested messages carefully before they are internalized by the personality. Although their extent changes from one person to another, those barriers exist in everyone. Lozanov cites three kinds of anti-suggestive barriers: the logical (reasoning) barrier, the affective barrier and the ethical barrier.

The logical barrier rejects everything which does not give "an impression of well intended logical motivation" (It is not possible to learn 800-1000 new words a day).

The affective barrier resists everything "which fails to create confidence and a feeling of security" (Why do I need to listen while the teacher reads the text with the music?) This barrier exists more in small children. When children get older, they begin to develop conscious critical thinking, and the affective barrier gradually disappears though never completely.

The third barrier is the ethical barrier "which is the nucleus of a man's ethical values created by his individual experience". If the suggestion is against one's ethical principles, it is rejected. (Why don't we learn seriously instead of playing games?)

The three anti-suggestive barriers interact with each other; therefore, they should not be considered in isolation.

Since in Suggestopedia/Reservopedia students are challenged to transcend their suggested negative limitations, it is likely that the teacher will be confronted with opposition from the students' anti-suggestive barriers. In such a case, harmonization with the barriers is crucial. "To cope with the logical, affective, and ethical anti-suggestive barriers requires not so much to overcome and impose something on them, but rather to bring the suggestion into harmony with their individual structure" (Lozanov, 1978, p.165). It is assumed that once the students have confidence in their

teacher, the power of these barriers will probably weaken, and this, in turn, will create readiness for suggestion.

2.30.3. Suggestion-Desuggestion

One goal of the method is to establish new norms concerning human potential. It is believed that this process involves both suggesting to students that they have great learning capacities and desuggesting their imposed assumptions related to their limited potential. In this sense, every suggestion is desuggestion.

The means of the desuggestive-suggestive communicative process are presented below:

Setup: the inner, paraconscious functional organization of readiness for a certain type of activity.

Attitude: one's conception of the value of a given phenomena, a conception built up in one's experience of life.

Motivation: the augmented desire or lack of desire to achieve or live through something.

Expectancy: the belief that something is really about to be achieved or lived through.

Interests: the direction of the personality's search for self-realization.

Needs: things virtually important to a person. (Lozanov, 1978, p.126)

2.30.4. The Setup and Its Relation to Learning

One of the important concepts in the method is the setup which refers to "the inner, unconscious, functional organization of readiness for a certain type of activity". This concept is based on the Soviet psychologist Uznadze's "Theory of Set". In Uznadze's classical example with objects, a person holds a heavy ball in one hand and a light one in the other, and then the subject holds two equal balls. The hand previously holds the lighter ball feels the weight to be heavier. According this theory, what and how we initially perceive something constitutes our setup, and we perceive subsequent phenomena according to our initial perceptions. As a result of our experience, we develop expectancy. A significant change in the setup may lead to a change in our perspective.

The concept of setup is directly related to the act of learning. Learners come to the learning context with a specific view of learning based on their previous learning and shaped by socio-cultural suggestive norms, which are often negative. Language learners often consider that learning a language requires patience and time. They consider themselves as unable to carry out such a difficult task. One of the fundamental goals of Suggestopedia/Reservopedia is to assist learners to create new norms for the capacities of personality. Lozanov (1978), states that "suggestion is the direct road to setup. It creates and utilizes setup which can free and activate the reserve capacities of the human being" (p.125).

2.31. What Suggestopedia/Reservopedia is Not

To answer the question of what Suggestopedia/Reservopedia is, it may be certainly said that Suggestopedia/Reservopedia is not hypnosis. Suggestion is defined as a constant communicative factor which can create conditions for revealing the hidden, unused reserves of the brain. "It is wrong to confuse the nature, fundamental laws and patterns of the broad psychological concept of suggestion as a communicative factor with the narrow clinical concept of hypnosis as a kind of state, sleeplike altered state of consciousness" (Lozanov, 2009, p.3).

Also, Suggestopedia/Reservopedia has nothing to do with NLP which came into being much later than Suggestopedia. Suggestopedia/Reservopedia as a dessuggestive pedagogy does not accept any "programming" caused by dictation and manipulation similar to hypnosis. Rather, it is a method of "deprogramming", which is strongly emphasized in the latest development of the Suggestopedic/Reservopedic system.

In addition, Suggestopedia/Reservopedia has never used and uses guided breathing exercises, guided visualization exercises, or guided fantasies. These guided techniques are used in the different forms of accelerative learning and super learning, but they are not used in Suggestopedia/Reservopedia. Initially, as part of the experimental work, students were allowed to relax in their chairs while the teacher was reading the material to be learned. But this did not bear any resemblance to guided relaxation where the teacher guides sensations and students lose touch with their

environment. Moreover, guided imagery and guided fantasy have never become the elements of the system.

Finally, Suggestopedia/Reservopedia is not muscle relaxation. After the results of the Suggestopedic method had been reported, Lozanov experimented on muscle relaxation as a means of increasing memorization. Observing the possibility of hypnotic states during muscle relaxation, he did not further experiment with it. "This proves that Suggestopedia, even in its earliest stages, was not a method of muscle relaxation as many authors tried to present it later" (Lozanov, 2009, p. 25). By relaxation Lozanov means "a state of calmness" which he considers essential for an effective teaching-learning process and for increased memory. Lozanov (2009) expounds that:

> After conducting a number of experiments we came to the conclusion that muscle relaxation is not necessary for the hypermnesia phenomenon to take place. It was found that psycho-relaxation was more important for the successful teaching-learning process. For the memory functions to perform correctly, it is necessary to create a calm state, thus a detachment from all the disturbing psychological influences can be assured. The students should be free not only from his/her suspicions or doubts but also from their everyday worries, from their life and work predominant preoccupations. (p.96)

In order to enhance potential for memory and creativity, Lozanov examined and introduced some practical methods such as music, songs, games and laughter into the whole system. But they should not be taken separately. Rather, each element is integrated into the entire system. As Tarr (1995) notes "rather than merely imitating the ways of Lozanov's method as if it were a recipe, far greater insights would be generated were we to creatively grasp the principles from which this approach emerges" (p.5).

2.32. Research into Brain and Its Relation to Suggestopedia/Reservopedia

That the brain is an organ of learning is a clearly known fact. Research into the brain shows that we use only four percent of our brain capacity, and the rest appears to be unused potential. When we learn the functioning of the brain and make the teaching compatible with it, the door might be opened to reveal that immense, unused potential. As a scientific researcher Lozanov's goal is to reach these hidden capacities of the brain/mind through the conditions created by his method. From this perspective, it is

important to know that the laws, principles, and means of the methodology are all in compliance with the working of the brain, and all are based on current research on the brain.

In today's world of information, the problem is not how to access the knowledge, but how to cope with this great bulk of knowledge explosion. One solution seems to rest teaching on the human brain instead of teaching against the operations of the brain. Realization of the dominant role of the brain in learning is relatively new. With the interest in the brain, several theories have been put forward to demonstrate how brain functions and its role in learning such as Right Brain-Left Brain Specialization, Triune Brain Theory, and the Holographic Theory of Brain. These theories of the brain will be discussed briefly and will be tied to Suggestopedia/ Reservopedia in order to see how current research on the human brain is reflected in the method.

The dual nature of the brain (verbal, analytical thinking is mainly located in the left hemisphere which processes information in a linear, sequential manner and visual, non-verbal, perceptual thinking mainly in the right hemisphere which processes information holistically) is not a new finding. In Suggestopedia/Reservopedia, both kinds of thinking are synchronized. Through the interactive operations of the left and the right hemispheres, whole brain is activated. As the left hemisphere deals with what we say, and the right deals with how we say it, these characteristics of the brain are reflected in the concept of the dual plane in Suggestopedia/Reservopedia.

In the 1950s Paul MacLean put forward the triune brain theory in which he presented the human brain as three horizontally divided smaller brains. The reptilian brain (brain stem) controls the basic instinctive responses; the old mammalian brain (the limbic system) controls emotions, sexuality and the pleasure centers; and the new mammalian brain (the neo-cortex) controls the intellectual processes. Hart (2002) reports that "this is one of the key aspects of the mid-century understanding of the human brain that MacLean brought more clearly into view: emotions significantly affect brain functions and thus learning, memory and behavior" (p.65).

Drawing on this finding, many researchers came to the conclusion that the key to more lasting learning may reside in the limbic system due to its potential to control emotions. It is believed that if new material is presented to generate emotions, it can

stimulate capacities not normally used. In keeping with the triune brain theory, a stimulating atmosphere is created in Suggestopedia/Reservopedia to affect the limbic system through the use of art, aesthetics, jokes, laughter, and music.

In Suggestopedia/Reservopedia, the brain is viewed as an indivisible unity rather than as cortex-subcortex or the right-left hemispheres. Its integrity necessitates the simultaneous activation of emotions and logical thinking, conscious and paraconscious activity as a whole. According to Lozanov, the integrity of these processes requires an organization of teaching from general to the particular and back to the general.

Both theories of the brain (left-right specialization/triune brain) are related to the theory of localization; they inform us where specific functions reside in the brain. The theory of localization becomes apparent in the theory of engrammes, "imprints in the cortex of the large brain hemisphere, which retain the memories of events, images and phenomena" (Lozanov, 2009, 122). According to this view, "the nervous system is composed of identifiable localized parts, and behavioral functions can be localized to particular components" (Squire, 1987, p.57).

A second view proposes that behaviors and mental activity are the results of the integrated activity of the entire brain. A number of studies reinforced the view that particular areas were not that clearly localized as it was previously assumed. "No memory centers exist where an entire memory is stored. It is simplistic and misleading to refer to "the engram" as if it were a single entity, rather than a collection of entities" (Squire, 1987, p.74). The most important finding came from K.S. Lashley's (1950) experiments with rats. Not having found any particular brain region in the rat responsible for storage of memory, Lashley proposed the "theory of equipotentiality" which means that memories are dispersed throughout the brain. Further research has shown that particular regions of the brain may be more specialized than others instead of being entirely equipotential.

The theory of equipotentiality finds an expression in K. Pribram's (1966, 1969, 1971, 1975, 1978) holographic theory according to which the brain functions as a hologram. A hologram is a three-dimensional photograph made with the help of a laser. According to this theory, when a hologram is cut in half and then illuminated by a laser, each half will still contain the whole image. Even if the halves are divided again, each

part will always be found to contain a smaller version of the original image, that is, every part of a hologram contains all the information possessed by the whole. Similarly, the universe itself is a projection, a hologram. Pribram believes that the brain acts as a hologram, and individual brains are parts of the greater hologram and everything is interrelated. The "whole in every part" nature of a hologram paved the way for a completely new way of understanding of organization and order of the brain. The theory of hologram finds an expression in Suggestopedia/Reservopedia's law of global-partial, partial-global where the parts are within the whole and the whole is within the parts.

Lozanov argues that we cannot explain a number of mental states either with the theory of strict localization or with the holographic hypothesis and suggests a third possibility "in searching for an explanation of the brain that is closer to physiological reality, and closer to the mind. This is a kind of a faceted functional structure of the brain" (p.128). This psychological approach to the brain is based on the current findings of anatomy and physiology of the brain and it is also related to the "theory of multiple personality", which postulates that "any change in psychic activity leads to a variety of changes in the whole personality, including functions of the body and brain" (Lozanov, 2009, p.108).

According to Lozanov's theory of faceted functional structure of the brain, the brain is composed of a basic functional unit just like the other organs in our body. The basic functional unit of the brain is the neuron. Lozanov (2009) states:

> Each of these structural and functional units is one facet, one tiny little brain... Each neuron, each facet is connected horizontally and vertically with all other neurons for which there is sufficient anatomical evidence…Each tiny brain is connected to billions of other tiny brains, thus, making possible the so called holographic function of the brain: everything is informed on everything. But, it is also connected vertically with the deep vegetative centers. (p.131)

2.33. Theory of Teaching-Learning in Suggestopedia/Reservopedia

Lozanov acknowledges that his method is "not an alternative to other methods", rather he refers to this as a new culture, a new kind of teaching and learning where knowledge is absorbed spontaneously just like the sponge gets soaked water. In his system, all negative elements are eliminated by their positive counterpart:

demotivation vs. motivation, fatigue vs. rest, illness vs. improved health, alienation vs. socialization, and subordination to limiting norms vs. free, organized, purposeful learning.

On the basis of the theory lies the learner as a "whole personality". In this system, whole brain is taken into account which matches the globally integrative character of the methodology. The theory of teaching in Suggestopedia/Reservopedia involves the following aspects: a psychological aspect, an anatomic-physiological aspect, an artistic aspect, a pedagogic and a psychotherapeutic aspect and a humanistic aspect, each of which is composed of the components given below.

The psychological aspect of theory:

1. The/Brain Mind functions of Reservology
2. The Seven Laws of Suggestopedia/Reservopedia
3. The Means of Reservopedia
4. Non-specific communicative factors
5. A system of peripheral perceptions
6. The multi-personality theory

The anatomic and physiological aspect of the theory:

1. The localization and holographic theories of brain function
2. The faceted functional structure theory of the brain

The artistic aspect of the theory:

1. A theory of application of a classical type of art
2. A theory of using art not as a stage for recreation, or for entertainment, but as an integrated component of the system
3. Total aesthetic organization as a method

The general pedagogical aspect of the theory:

1. An unusually large volume of the study material in each lesson and for the whole course
2. The special structuring of the material: global to element, element to global

3. Planning passive knowledge as well as active knowledge
4. The extremely important requirement: “above all, do no harm”
5. The golden proportion maintaining harmony in the teaching process

The psychotherapeutic aspect of the theory

1. The social suggestive norm
2. The types of human communication from the perspective of freedom and personality development
3. The laughter system not as a relaxation but as an integral component

The humanistic aspect of the theory

1. The development of personality through the educational process
2. The enhancement of harmonious communications and socialization

CHAPTER III: METHODOLOGY

This chapter will provide information about the research design, participants, adaptation of the instructional materials, data collection procedures, determination of the content of the tests, the experimental treatment, the control treatment, data analysis tools and criteria used to analyze and interpret the test results.

3.1. Research Design

The impact of Suggestopedia/Reservopedia on vocabulary learning was measured using experimental research design with pre- and post-tests. Since the groups had already been established according to the results of the placement test by the preparatory school, an intact-group design was used. Hatch and Farhady (1982) define intact group design as follows:

> This is the design that most classroom researchers use. It is often impossible for us to assign students randomly to language classes. Students are placed in classes on the basis of some criterion (e.g. scores on a placement test, successful completion of the prior course, or even self-selection according to the time the class is offered. (p.20)

In order not to disrupt the homogeneity, special attention was given to ensure equal gender and major distribution by the administration of the school. According to the placement test results, all the students were assumed to be at the same level, which ensured and justified the homogeneity between the groups for this experimental study.

In order to test the effect of Suggestopedia/Reservopedia on vocabulary learning, two groups that were randomly assigned by the administration to the researcher were selected. One was the experimental group taught by the researcher herself using the laws, principles, and means of Suggestopedia/Reservopedia, and the other was the control group which received Non-Suggestopedic/Reservopedic teaching.

This study was carried out in the Basic English course. This is a course during which students learn both grammar points and other areas of English. The reason why the researcher decided to conduct the study in this course was that it contained all aspects of the language. According to the usual teaching practice at the institution, students have 16 hours of Basic classes per week and two instructors co-teach these

classes, each teaching 8 hours. In order to teach the experimental group 16 hours Suggestopedically/Reservopedically, official permission was granted from the administration to the researcher. Since the method under the investigation required the training of the teacher, the researcher herself had to conduct the study for the experimental group. The researcher adapted the authorized coursebook chosen by the school in conformity with the laws, principles, and means of Suggestopedia/ Reservopedia and taught the experimental group. The teaching of the experimental group took place in a regular classroom setting without resorting to any special conditions. For the control group, the usual teaching practice was followed; the researcher and another instructor co-taught the control group and followed the authorized coursebook. The teaching was carried out by the instructors as a normal part of the school program. Both instructors were experienced female non-native teachers.

Besides the preparation and the implementation of the instructional materials, the researcher prepared and administered pre- and post-tests in order to determine the effects of the intervention on student's vocabulary achievement. Every two weeks a pretest about the vocabulary to be covered in the coming four units was administered to see the difference between the groups in terms of prior knowledge. The same test was later used as the post-test after the teaching of those units. When the next term started after a 40-day semester break, a final exit test was administered to the students in both groups. This test contained exclusively the vocabulary words that students had learnt in class. The aim of the exit test was to measure students' delayed rate of recognition of the taught vocabulary words. All the tests were identical in format, and both groups were given the same tests to determine their performance after the instruction.

The study began at the beginning of the Fall semester in 2008 and continued till the end of the semester. Initially, the researcher planned to administer 7 pre-tests and 7 post-tests according to the academic calendar year for one semester lasting 14 weeks. However, due to the national and religious holidays, almost most of the students were absent during those times. Moreover, the last week of the term was allocated to the midterm exams, and there were no classes in that week. Therefore, the researcher decided to administer 4 pre-tests and 4 post-tests.

3.2. Participants

Two groups of elementary level students enrolled in the preparatory school at the AİBU for the Fall 2008 semester were the participants in this study. Their ages ranged between 17 and 20. These students were from different regions of Türkiye. Their majors were Mathematics, Biology, Chemistry, Physics, Psychology, International Relations, History, Turkish Language and Literature, and Engineering.

Participants of this study shared many similar characteristics. They came from Turkish high schools and Turkish families. They were all native speakers of Turkish. Their English background was similar in terms of their previous exposure to English. The participants in this study studied 28 hours English a week. They had 16 hours of Basic English, 8 Hours of Reading and Writing, and 4 hours of Listening and Speaking classes, each class lasting 50 minutes.

3.3. Adaptation of the Instructional Materials

The researcher was dependent on the syllabus of the coursebook chosen by the school. Each book contained 14 units. In the first term, the elementary level book and three units from the pre-intermediate book were covered. For the experimental group, the researcher designed additional instructional materials: every two units in the coursebook were combined into one unit and were adapted to the method. The first unit in the coursebook was taught separately in order to ensure homogeneous distribution of the units. In the following weeks in order to teach the targeted vocabulary items in addition to other language areas, the researcher designed Suggestopedic/Reservopedic materials which corresponded unit by unit in terms of language focus to their non-Suggestopedic/Reservopedic counterparts. The prepared materials were presented in one day, and the coming days were allocated to the elaboration phase of the Suggestopedic/Reservopedic cycle. The investigator strictly followed the Suggestopedic laws, principles, and means as specified by the developer of the method during her training. In the control group, students were taught Non-Suggestopedically/ Reservopedically and followed the coursebook.

3.4. Data Collection

In an attempt to find answers to the research questions in this study, the researcher under the guidance of her advisor first determined which vocabulary words were to be taught. In order to measure the impact of the teaching of the selected vocabulary on the vocabulary development of the students, the researcher developed 4 pre-tests and 4-post tests as well as a final exit test and followed the coursebook. The same tests were administered in both groups.

The number of items in each test was as follows: first test: 40, second test: 40, third test: 42, fourth test: 30. The follow up test, containing 152 items, which was administered at the onset of the second semester, covered all the vocabulary items that students learned in the previous tests. That test was identical in format to the other tests.

The researcher was responsible for teaching the vocabulary words in the authorized textbook because the students were evaluated on those items. The words in the textbook were numerous, and most of them were so basic that they were known by almost all the students. Furthermore, most words in the textbook were not sufficient to satisfy the student's communicative needs. For this reason, the researcher selected a total of 152 words (see Appendix-A), giving the priority to the most frequent words cited in the three word lists which were mentioned previously. In order to see to what extent those words were learned by the students, the researcher administered 4 pre- and 4-post tests.

3.4.1. Pre-tests

The vocabulary pre-test which included the vocabulary words chosen according to Academic Word List, General Word List and University Word List was administered to both groups before the new units were taught. They were implemented in order to determine whether the groups differed in terms of prior knowledge and to see the impact of teaching. Then, instruction commenced.

3.4.2. Post-tests

At the end of every two weeks, following the teaching of four units, a post-test which was the same as the pre-test was administered to both groups of students. The

administration of the post-tests served two purposes. One was to provide data as to whether the implementation of the instructional materials made any difference on the experimental group. The other was to test students' short term retention of the taught lexical items. All the post-tests were identical in format to the pre-tests.

3.4.3. The Follow-up Test

The follow-up test that included all the items tested before was administered at the beginning of the second term after a 40-day semester break. This test was designed to examine the long-term retention of the material presented during one semester.

3.5. Determination of the Content of the Pre-and Post-tests

The first step taken by the researcher was the determination of the vocabulary items to be taught. Two important criteria were taken into consideration while preparing the vocabulary tests. First, priority was given to those words which were cited in three well known word lists: Academic Word List, General Word List and University Word List. Second, the vocabulary items highlighted in the units of the coursebook, but not included in the aforementioned word lists were also included as the students were evaluated on the lexical items in their course book.

The tests consisted of one part: the subjects were required to choose the best word for each blank from a given list of words and distractors. The distractors were selected from the words which were taught in the related units. Besides, each word given to the students was new in every test.

3.6. The Experimental Treatment

After the selection of the words to be taught, the researcher in the light of her training prepared the instructional materials to teach the experimental group Suggestopedically/Reservopedically. The researcher by focusing on the vocabulary component of language during the elaboration stage of the Suggestopedic/Reservopedic cycle investigated only vocabulary achievement of the students.

When the semester began, at the beginning of the introduction of the first lesson, the researcher introduced the method to the experimental group. This introduction was guidelines dictated by the "International Centre of Desuggestology".

Students were briefly informed about the method and what was expected of them. They were not informed that they would be participants in an experimental study. As homework, students were told to read the given material before they went to bed and after they woke up in the morning.

The weekly prepared Suggestopedic/Reservopedic materials contained vocabulary items and grammar points which were going to be taught in a given week. The materials were distributed as handouts to the students and presented through the following components of the method:

1. Introduction
2. Concert Sessions (The Active Concert/ the Passive Concert)
3. Elaboration
4. Performance

The introduction stage, containing all the language points specified in the syllabus in a given week, was presented by the researcher on the same day through a meaningful story. After this stage, the students listened to some classical music pieces tested by the developers of the method in the laboratories. The researcher read the lesson material with some special intonation to the music. This is called the active session of the cycle in which students are asked to follow the text together with the translation in their handouts. In the second part, called the passive session, the students listened to the reading of the teacher at a normal pace with the accompaniment of a different classical music piece. These two phases of the Suggestopedic/Reservopedic cycle, that is, introduction and concert sessions were always performed on the same day - an important rule to follow in a typical Suggestopedic/Reservopedic lesson.

In the following days, students in the experimental group activated the material in a creative way through various activities such as games, puzzles, songs, interesting reading texts, and role plays. This is called elaboration stage of the Suggestopedic cycle. For the fourth stage of the Suggestopedic/Reservopedic cycle, that is the performance stage, the students created their individual stories, containing words and grammar points for a given week or acted out the “speak out” parts in their coursebooks.

3.7. Suggestopedic/Reservopedic Principles Observed in the Preparation and Adaptation of Teaching Materials

In the preparation and implementation of the Suggestopedic/Reservopedic materials, four laws of the method were strictly respected: manifold increase of input volume, global-partial; partial-global; partial through global, the golden proportion, and use of classical art and aesthetics.

To reiterate, the students were taught two units per week according to the schedule followed by all the elementary groups. In all the groups, the same points had to be taught at the same time. In this study, every two units in the book were developed into one unit by the researcher. The aim was to respect an important principle of the method: “manifold increase of input volume”. In essence, this principle means that Suggestopedic/Reservopedic materials need to be voluminous. As the researcher had to teach according to the schedule followed by all the groups, she did not develop more voluminous material in a given week than developing two units into one.

Another principle of the method paid special attention was “the principle of global-partial, partial-global, partial through global”. This principle rejects the teaching of the partial first and then constructing the global from it. To that end, all the vocabulary items as well as the language points targeted in a given week were presented globally on the same day in a meaningful organized story in order for students to get an idea of the total, that is, to see the big picture before the details. This story which constituted the introduction stage of the Suggestopedic/Reservopedic cycle was presented by the researcher. The global was further brought to the attention of the students partially during the elaboration stage through various activities.

In all parts of the course another important law of the method followed by the researcher was the “golden proportion”. If a segment is divided into two unequal parts so that the ratio of the small part to the big one should be equal to the ratio of the big part to the whole, the result is the golden proportion. This law is especially observable between the introduction and the concert session of the cycle. To illustrate, the introduction of the first lesson of the first unit lasts 80 minutes. After a 30 minute break, active session lasts 50 minutes and the passive session lasts 30 minutes. When we divide, 30 into 50, we get 0.6, indicating the golden proportion.

Finally, the use of art and aesthetic was given special attention in the organization and presentation of the material. For instance, the classroom was aesthetically decorated with didactic materials such as posters and pictures. The researcher prepared the materials of the peripheral learning relevant to the vocabulary and language items in a given week and hung them on the walls two-three days before she started teaching. Besides, in the researcher-designed handouts, every introduction contained a piece of literature, poem, or saying taken from English literature. In this way, the students were given the opportunity to penetrate into the English culture.

In the entire process, the investigator followed the other laws of the method as well. They were love, freedom, and conviction of the teacher that something unusual is taking place. To that end, the entire process was based on subtleties of communication that underlie these three laws of the system. First of all, the researcher paid special attention to the harmony of her body language (gesture, facial expression, rhythm, intonation, and stance) and the content of her verbal messages. Stated in another way, the researcher synchronized her verbal and nonverbal suggestions in order to overcome learning barriers of the students. Therefore, an atmosphere of warmth, sincerity, and enthusiasm was created where students felt free to express themselves. To that end, students' mistakes were not overtly corrected. The researcher also suggested that vocabulary would bring success in other areas of language and showed genuine interest in the progress of the students' vocabulary.

3.8. The Control Treatment

In the control group, the authorized coursebook on which the most of the teaching was based was taught by the researcher and another instructor. The usual teaching practice adopted by the instructors was to present the detailed grammatical explanation followed by related exercises in order to consolidate the point.

In the student's book the related grammar points and vocabulary were mainly introduced in short contexts either through listening or reading. Some important words were underlined or shown in a different color to draw attention to their relative importance. In their textbooks the students were provided with exercises such as matching, multiple-choice, sentence-level, and speaking exercises in which they were given the opportunity to use the vocabulary they had learnt. For each unit an

alphabetical list of words was presented in their workbook as well. Students were provided with their definitions by the teachers, either through contexts, synonyms, antonyms, or Turkish equivalents. Therefore, it might be concluded that the teaching of vocabulary was not based on a principled, systematic foundation. Furthermore, analysis revealed that the selection of words in the authorized coursebook was not based on any of the three word lists. Students in the control group were also not informed that they would be the participants in an experimental study.

3.9. Data Analysis Tools

In order to see whether significant differences would emerge within and between the groups, the data obtained from the results of the experimental and control group students' pre- and post-tests were statistically analyzed. In order to analyze the data, two types of statistical tests were used. They were paired *t*-test and independent *t*-test. The accounted "p" and "t" values and confidences intervals that revealed the differences between the groups were shown in tables and with graphics, namely histograms and boxplots. In order to provide an objective measure of the effect of teaching, Cohen's *d* was computed as well.

3.10. Criteria Used to Analyze and Interpret the Test Results

3.10.1. *t*-Test

Cohen, Manion, & Morrison (2007) state that:

> The *t*-test is used to discover whether there are statistically significant differences between the means of two groups, using parametric data drawn from random samples with a normal distribution. It is used to compare two groups randomly assigned, for example on a pre-test and a post-test in an experiment. (p.543)

There are two different *t*-tests: the *t*-test for related or paired samples and the *t*-test for independent samples.

In statistics *t* is used to analyze the difference of the means of each group and the means of the experimental and the control group.

The p-value is calculated to see the probability of a more extreme (positive or negative) result than what is observed.

3.10.2. Paired *t*-Test

This is a statistical technique that is used to establish "whether two means collected from the same sample (or related observations) differ significantly" (Field, 2009, p.784). Paired sample *t*-test is usually used in before-after studies. As in this study, if the pre-test and the post-test are the same, the impact of the treatment can be calculated by comparing the pre-test and post-test scores within the groups. By using paired-sample *t*-test, it is statistically possible to conclude whether or not the treatment has made an impact on the participants over the period of the experiment.

3.10.3. Independent *t*-Test

Field (2009) defines independent *t*-test as "a test using the *t*-statistic that enables whether two means collected from independent samples differ significantly" (p. 787). One common application of this is to test if a treatment has made any effect on the current situation or not. In this study, this test was used to compare the placement, pre- and post-test scores between the groups.

3.10.4. Significance Level

Significance level refers to the common way of reporting whether a result is statistically significant or not. It is obtained by generating "p" value from a test statistic. If it is stated that the level of significance is 0,01, then any result with a "p" value of less than 0,01 can be considered as statistically significant. In this study the 0,01 level of significance was used as the criterion level for determining a significant difference.

3.10.5. Confidence Interval

In relation to confidence intervals Field (2009) notes:

> A different approach to assessing the accuracy of the sample mean as an estimate of the mean in the population is to calculate boundaries within which we believe the true value of the mean will fall. Such boundaries are called confidence intervals. The basic idea behind confidence intervals is to construct a range of values within which we think the population value falls.(p.43)

The common levels are 0,95 or 0,99 which signify that the data are good enough to corroborate a conclusion with 95% or 99% confidence. This means that the finding has a 95% or a 99% chance of being true. In this study 0,99 level of confidence interval was used.

3.10.6. Cohen's *d*

Field (2009) states that "just because a test statistic is significant does not mean that the effect it measures is meaningful or important. The solution to this criticism is to measure the size of the effect in a standardized way" (p.56). Two common measures of effect size are Cohen's *d* and Pearson's correlation coefficient *r,* indicating the mean differences in standard deviation units. "There are situations in which *d* may be favored; for example, when group sizes are very discrepant, *r* can be quite biased compared to *d"* (McGrath & Meyer, 2006, as cited in Field, 2009, p.57). Based on this, in the present study Cohen's *d* was used to show the size of the effect. (for the formulas, see appendix B)

According to Cohen (1992) classification of the effect sizes for Cohen's *d* are as follows:

0,0 = there is no significant between two groups

0,2 = small

0,5 = medium

0,8 ≤ large

3.10.7. Histogram

In this study the results were presented using two graphics. They are histogram and boxplot. Histogram provides a graphical summary of the shape of the data's distribution. It is often used in combination with other statistical summaries such as boxplot which conveys the median, quartiles, and the range of the data. According to Martinez & Martinez (2008), histograms are used for "to summarize data set to understand general characteristics of the distribution such as shape, spread or location; to suggest possible probabilistic models; to determine unusual behavior" (p.119). Sanders & Smidt (2000) note that "such a presentation of the data found in a frequency table is more likely to get the attention of the casual observer. It may show trends or relationships that might be overlooked in a table" (p.59).

3.10.8. Boxplot

Boxplot is a type of graph which is used to show the shape of the distribution, its value, and variability. According to Field (2009) boxplots are useful because they "show the range of scores, the range between which the middle 50% of scores fall, and the median, the upper quartile and lower quartile score, and tell us that whether the distribution is symmetrical or skewed" (p.102). In this study, boxplot is used to see the distribution of the two groups in the same graph in a comparative manner.

CHAPTER IV: DATA ANALYSIS

In this chapter, the results of the experimental study will be analyzed in the light of comparison of the pre-test scores of both the experimental and control group students using the data analysis tools introduced in the last section of chapter III.

4.1. The Placement Test

As stated earlier, at the onset of each year students sit for a placement test in order to determine their ability streams. According to the results of this test, students are placed into their groups. In the placement test students were asked a 100-item multiple choice test. In total 45 students took this test in both groups. The placement test scores of the experimental and control group students were compared using independent *t*-test. The mean score of the experimental group for the placement test were found to be 38,46 (SD:4,36) whereas it was found to be 37,53 (SD: 3,41) for the control group. The t-value and p-value between the two groups were 0,81 and 0,42 (p>0,01). These results show that no significant difference was found in the placement test results. In other words, the experimental and the control group students were at the same level at the onset of the study.

In Table 4.1 the placement test results of both groups are presented. The boxplot graphic of the placement test scores for both groups is shown in Figure 4.1.

Table 4.1 Independent *t*-test results of the experimental and control group students' placement test

Test	Group	N	Mean	SD	t	p
Placement (100 items)	Experimental	26	38,46	4,36	0,81	0,42
	Control	19	37,53	3,41		

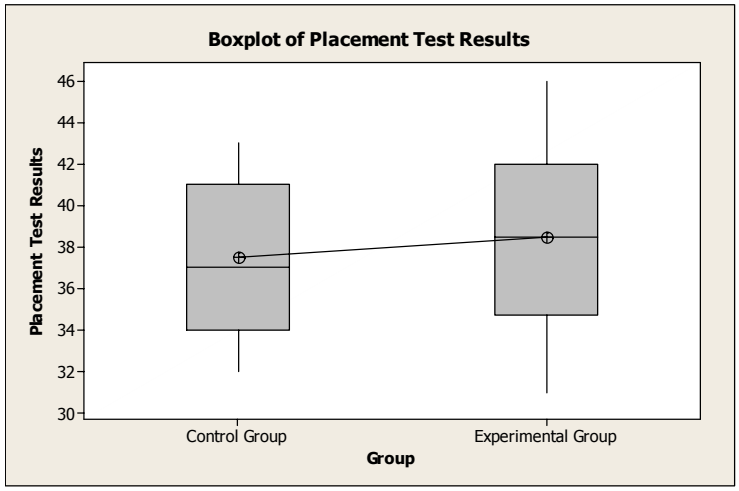

Figure 4.1 The boxplot graphic of the placement test scores

4.2. Pre-test Results

4.2.1. Pre-test 1 Results

There were 40 vocabulary items in the pre-test 1. In total 39 students took this test. The results showed that the mean score of the experimental group was 15,18 (SD: 7,49) and it was 12,65 (SD: 7,04) for the control group. The t-value and p-value between the two groups were 1,08 and 0,286 (p>0,01). Therefore, according to the results there was no significant difference in pre-test 1 between the two groups. That is, the students in both groups could be considered at the same level before the Suggestopedic/Reservopedic intervention. The values are given in Table 4.2 and the boxplot graphic of the pre-test 1 scores is displayed in Figure 4.2.

Table 4.2 The comparison of the experimental and control group students' pre-test 1 scores

Test	Group	N	Mean	SD	t	p
Pre-test 1 (40 items)	Experimental	22	15,18	7,49	1,08	0,286
	Control	17	12,65	7,04		

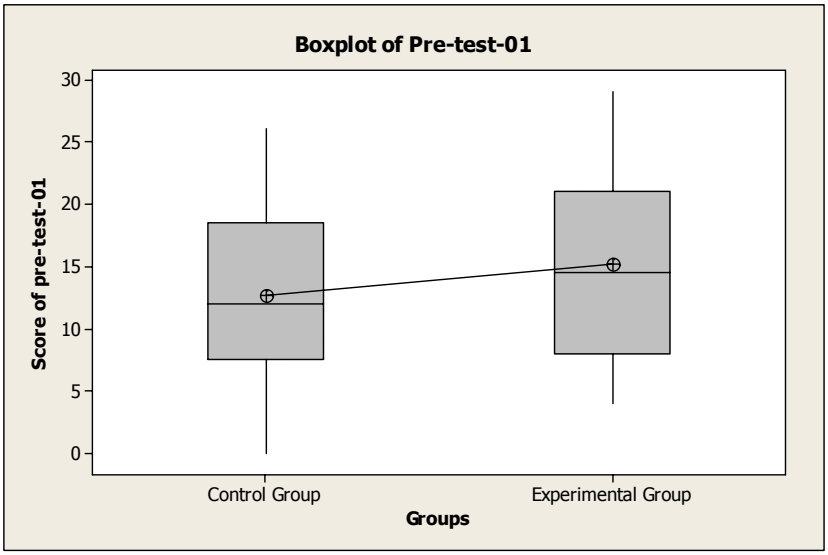

Figure 4.2 The boxplot graphic of the pre-test 1 scores

4.2.2. Pre-test 2 Results

In Pre-test 2 there were 40 vocabulary items. 34 students took the test. The mean score of the experimental group students was found to be 18,76 (SD:7,7), whereas it was 17,31 (SD: 8,76) for the control group. The accounted t-value and p-value between the two groups were 0,49 and 0,627 (p>0,01). These results again did not demonstrate any significant difference between the two groups in the pre-test 2. In sum, both groups were considered to be at the same level. Table 4.3 shows the experimental and control group students' pre-test 2 results. The boxplot is shown in Figure 4.3.

Table 4.3 The comparison of the experimental and control group students' pre-test 2 scores

Test	Group	N	Mean	SD	t	p
Pre-test 2 (40 items)	Experimental	21	18,76	7,7	0,49	0,627
	Control	13	17,31	8,76		

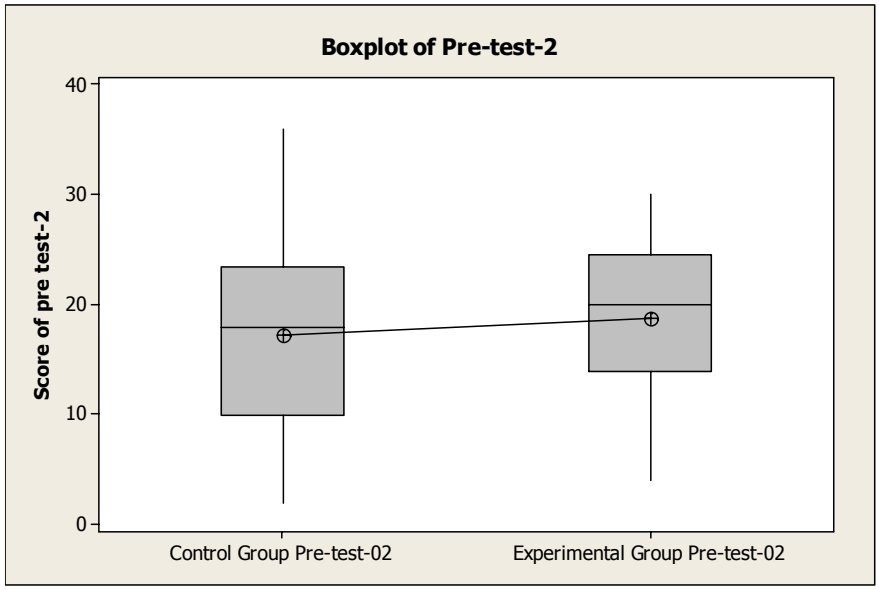

Figure 4.3 The boxplot graphic of the pre-test-2 scores

4.2.3. Pre-test 3 Results

In this test 42 vocabulary items were tested. The total number of students was 42. Analysis of the results showed that the average score for the experimental group was 10,46 (SD:5,88). It was 7,5 and (SD: 6,18) for the control group. The t-value and p-value between the two groups were found to be 1,57 and 0,125 (p>0,01). That is to say, no significant difference between the experimental and the control group was found. The groups were again at the same level at the beginning. Table 4.4 illustrates the comparison of the pre-test 3 scores of the experimental and control group students. The graphical result is presented in Figure 4.4.

Table 4.4 The comparison of the experimental and control group students' pre-test 3 scores

Test	Group	N	Mean	SD	t	p
Pre-test 3 (42 items)	Experimental	24	10,46	5,88	1,57	0,125
	Control	18	7,5	6,18		

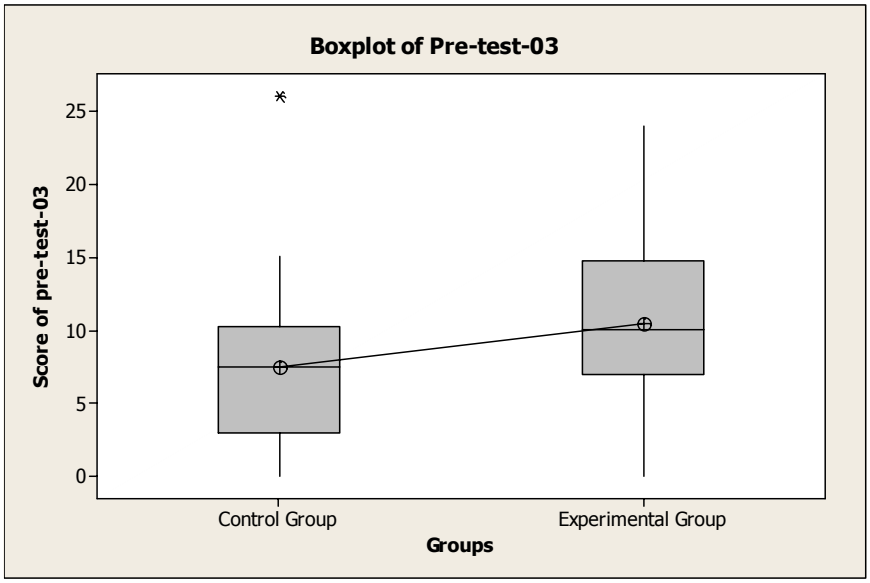

Figure 4.4 The boxplot graphic of the pre-test 3 scores

4.2.4. Pre-test 4 Results

There were 30 vocabulary items and 30 students participated in this test. The mean score of the experimental group was found to be 5,06 (SD: 3,28) and it was 7,17 (SD: 3,88) for the control group. The t-value and p-value between the two groups were 1,55 and 0,137 (p>0,01). In other words, there was no significant difference in the pre-test 4 results of both groups before the Suggestopedic/Reservopedic teaching. In Table 4.5 the experimental and control group students' pre-test 4 scores are compared. The boxplot is shown in Figure 4.5.

Table 4.5 The comparison of the experimental and control group students' pre-test 4 scores

Test	Group	N	Mean	SD	t	p
Pre-test 4 (30 items)	Experimental	18	5,06	3,28	1,55	0,137
	Control	12	7,17	3,88		

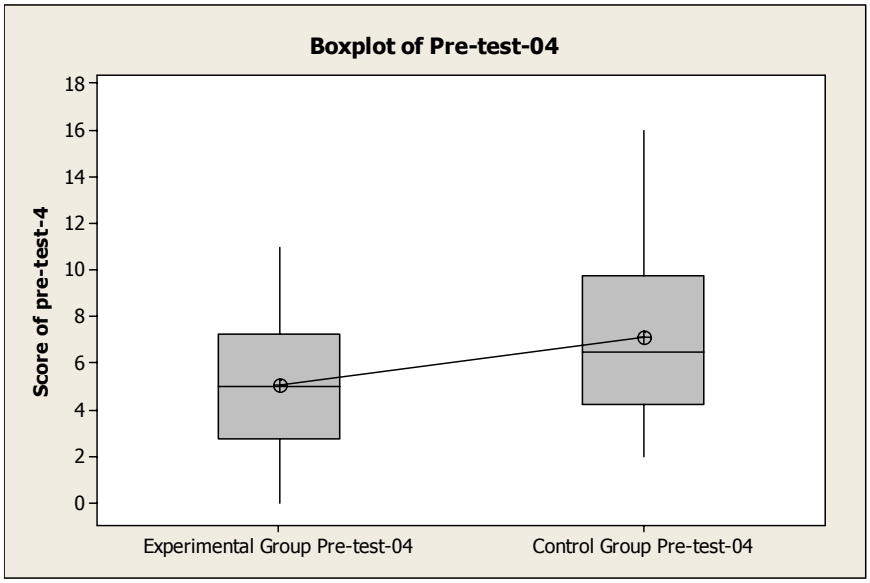

Figure 4.5 The boxplot graphic of the pre-test 4 scores

4.2.5. Summary of the Pre-test Results

When the results of the analyses were taken into account, no significant difference was found between the experimental and control group students' initial level of vocabulary. Therefore, the students in both groups can be considered at the equal level before the onset of the study. The cumulative results of the tests are shown in Table 4.6.

Table 4.6 Independent *t*-test results of the experimental and control group students' level of vocabulary in pre-tests

Test	Group	N	Mean	SD	t	p
Pre-test 1 (40 items)	Experimental	22	15,18	7,49	1,08	0,286
	Control	17	12,65	7,04		
Pre-test 2 (40 items)	Experimental	21	18,76	7,7	0,49	0,627
	Control	13	17,31	8,76		
Pre-test 3 (42 items)	Experimental	24	10,46	5,88	1,57	0,125
	Control	18	7,5	6,18		
Pre-test 4 (30 items)	Experimental	18	5,06	3,28	1,55	0,137
	Control	12	7,17	3,88		

4.3. Results of Differences between the Pre- and Post-Tests

4.3.1. Results of Differences between Pre- and Post-Test 1 in the Experimental and Control Groups

In comparing the pre- and post-test scores, only the scores of the students who took both tests were included. That is to say, the students who did not take the pre-test were not included in the post-test even if they participated in the post-test. Therefore, the number of students for each pre- and post-test was the same.

The mean scores of the experimental group for the pre-test 1 and the post-test 1 were found to be 15,18 (SD: 7,49) and 33,91 (SD: 3,83), whereas they were respectively 12,65 (SD: 7,04) and 21,65 (SD: 8,02) for the control group. The p-value of 0,000 ($p<0,01$, even less than 0,001) showed that there was a significant difference between pre- and post-test 1 scores of the experimental group. Similarly, there was a difference between pre- and post-test 1 scores of the control group ($p<0,01$). After the study, mean differences with 99% confidence interval for the experimental and the control groups were respectively 15,59-21,86 and 5,80-12,20. According to the results, the

experimental group outperformed the control group in the post-test 1, which may be interpreted as the positive influence of the Suggestopedic/Reservopedic teaching. The results of mean differences are shown in Table 4.7.

The graphics of the differences between pre-test 1 and post-test 1 for the experimental and control groups are shown in Figure 4.6 and Figure 4.7.

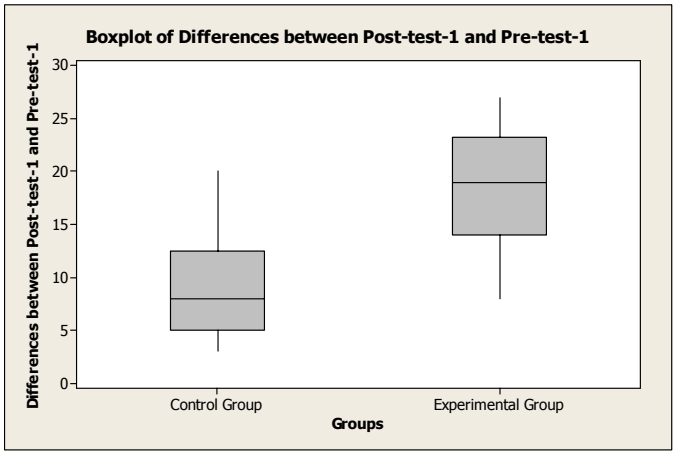

Figure 4.6 The boxplot graphic of differences between pre-and post-test 1

Table 4.7 Paired *t*-test results of differences between pre-and post-test 1 in the groups

Group	Test		N	Mean	SD	99% Confidence Interval for Mean Difference		t	p
						Lower Bound	Upper Bound		
Experimental	Test-1 (40 items)	Pre	22	15,18	7,49	15,59	21,86	16,91	0,000
		Post	22	33,91	3,83				
Control	Test-1 (40 items)	Pre	17	12,65	7,04	5,80	12,20	8,22	0,000
		Post	17	21,65	8,02				

In Figure 4.7 the mean differences with 99% confidence interval are displayed with the blue line.

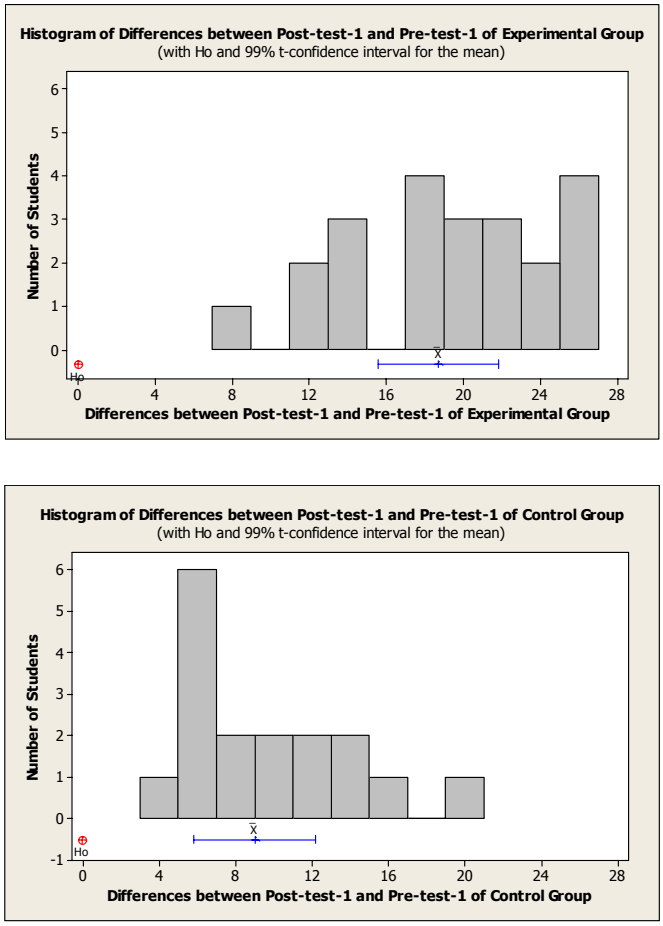

Figure 4.7 The histograms of differences between pre-and post-test 1 for the experimental and control groups

4.3.2. Results of Differences between Pre- and Post-Test 2 in the Experimental and Control Groups

The mean scores of the experimental group for the pre-test 2 and the post-test 2 were respectively 18,76 (SD: 7,7) and 33,95 (SD: 4,1). They were found 17,31 (SD: 8,76) and 22,77 (SD:8,97) for the control group. The p-value of 0,000 ($p<0,01$, even less than 0,001) signified that there was a significant difference between pre- and post-test 2 scores of the experimental group. There was also a difference between pre- and post-test 2 scores of the control group ($p<0,01$). Following the treatment, the mean differences with 99% confidence interval for the experimental and control groups were found to be respectively 11,49-18,89 and 1,06-9,86. That is, the gain scores between pre- and post-test 2 of the experimental group showed that Suggestopedic/Reservopedic students performed better than those in the control group. Therefore, it can be concluded

that the implementation of the Suggestopedic/ Reservopedic teaching contributed to the increase in the vocabulary achievement of the experimental group.

The results of the mean differences are shown in Table 4.8. The graphics of the differences between pre-test 2 and post-test 2 for the experimental and control groups are shown in Figure 4.8 and Figure 4.9.

Table 4.8 Paired *t*-test results of differences between pre- and post-test 2 in the groups

Group	Test		N	Mean	SD	99% Confidence Interval for Mean Difference		t	p
						Lower Bound	Upper Bound		
Experimental	Test-2 (40 items)	Pre	21	18,76	7,7	11,49	18,89	11,69	0,000
		Post	21	33,95	4,1				
Control	Test-2 (40 items)	Pre	13	17,31	8,76	1,06	9,86	3,79	0,003
		Post	13	22,77	8,97				

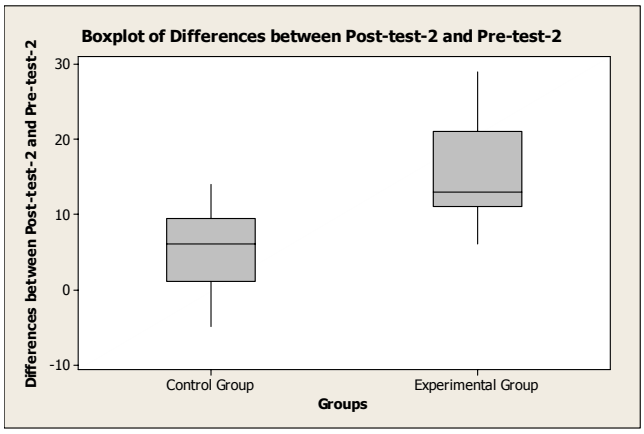

Figure 4.8 The boxplot graphic of differences between pre- and post-test 2

In Figure 4.9 the mean differences with 99% confidence interval are shown with the blue line.

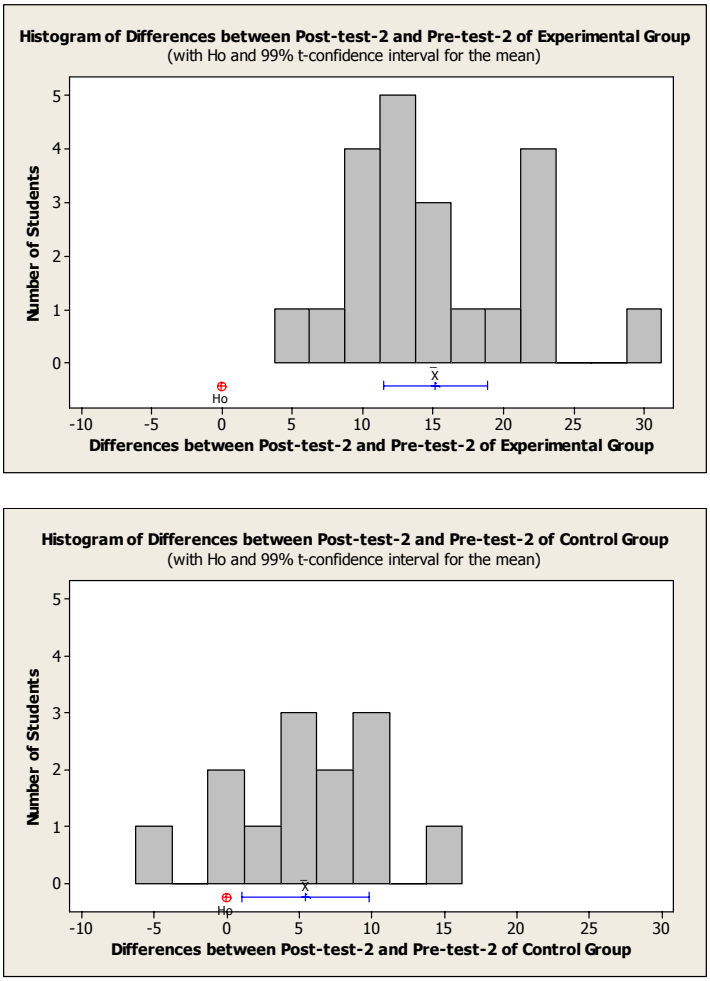

Figure 4.9 The histograms of differences between pre- and post-test 2 for the experimental and control groups

4.3.3. Results of Differences between Pre- and Post-Test 3 in the Experimental and Control Groups

The mean scores of the experimental group for the pre-test 3 and the post-test 3 were found to be respectively 10,46 (SD: 5,88) and 35,5 (SD: 5,36). They were 7,5 (SD: 6,17) and 17,5 (SD: 8,71) for the control group. The p-value of 0,000 ($p<0,01$, even less than 0,001) indicated that there was a significant difference between pre-test 3 and post-test 3 scores of the experimental group. There was also a significant difference at the $p<0,01$ level between the results of pre- and post-test 3 scores of the control group. After the study, the mean differences with 99% confidence interval for the experimental and control groups were found to be 21,19-28,89 and 5,67-14,33. This indicated that the scores of the experimental group after the treatment sharply increased.

The results of the mean differences are shown in Table 4.9. The graphics of the differences between pre-test 3 and post-test 3 for the experimental and the control groups are shown in Figure 4.10 and Figure 4.11.

Table 4.9 Paired *t*-test results of differences between pre- and post-test 3 in the groups

Group	Test		N	Mean	SD	99% Confidence Interval for Mean Difference		t	p
						Lower Bound	Upper Bound		
Experimental	Test-3 (42 items)	Pre	24	10,46	5,88	21,19	28,89	18,27	0,000
		Post	24	35,5	5,36				
Control	Test-3 (42 items)	Pre	18	7,5	6,17	5,67	14,33	6,7	0,000
		Post	18	17,5	8,71				

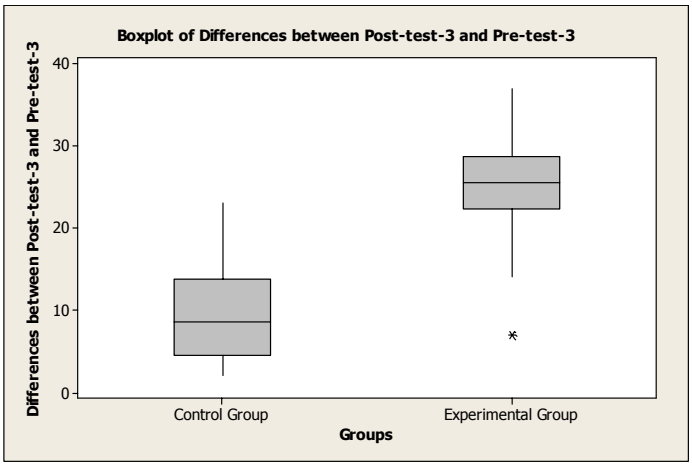

Figure 4.10 The boxplot graphic of differences between pre- and post-test-3

In Figure 4.11 the mean differences with 99% confidence interval are shown with the blue line

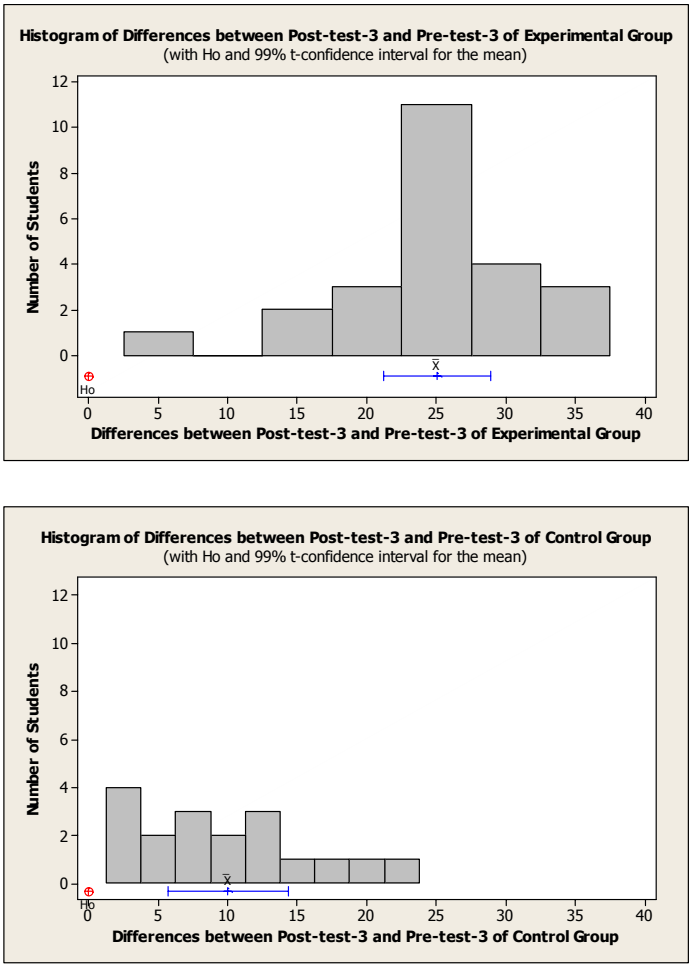

Figure 4.11 The histograms of differences between pre-and post-test 3 for the experimental and control groups

4.3.4. Results of Differences between Pre- and Post-Test 4 in the Experimental and Control Groups

The mean scores of the experimental group were respectively 5,06 (SD: 3,28) and 21,78 (SD: 3,87). They were found to be 7,17 (SD: 3,88) and 15,33 (SD: 6,67) for the control group. The p-value of 0,000 ($p<0,01$, even less than 0,001) showed a significant difference between pre- and post-test 4 scores of the experimental group. A significant difference ($p<0,01$) was also found between pre- and post-test 4 scores of the control group. After the intervention, the mean differences with 99% confidence interval for the experimental and the control groups were found respectively 14,45-18,99 and 4,86-11,47. Higher values of the experimental group revealed that

Suggestopedic/Reservopedic teaching helped to raise the scores of participants at a significant level.

The results of the mean differences are shown in Table 4.10. The graphics of differences between pre-test 4 and post-test 4 for the experiment and control groups are shown in Figure 4.12 and Figure 4.13.

Table 4.10 Paired *t*-test results of differences between pre-and post-test 4 in the groups

Group	Test		N	Mean	SD	99% Confidence Interval for Mean Difference		t	p
						Lower Bound	Upper Bound		
Experimental	Test-4 (30 items)	Pre	18	5,06	3,28	14,45	18,99	21,36	0,000
		Post	18	21,78	3,87				
Control	Test-4 (30 items)	Pre	12	7,17	3,88	4,86	11,47	7,67	0,000
		Post	12	15,33	6,67				

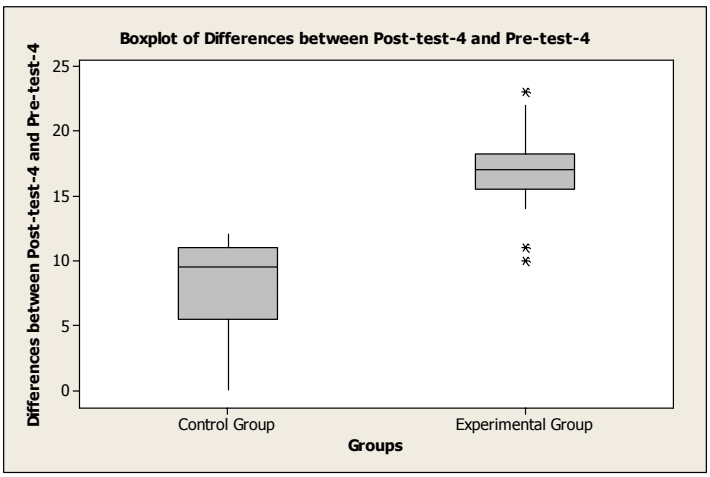

Figure 4.12 The boxplot graphic of differences between pre-and post-test 4

In Figure 4.13 the mean differences with 99% confidence interval are shown with the blue line.

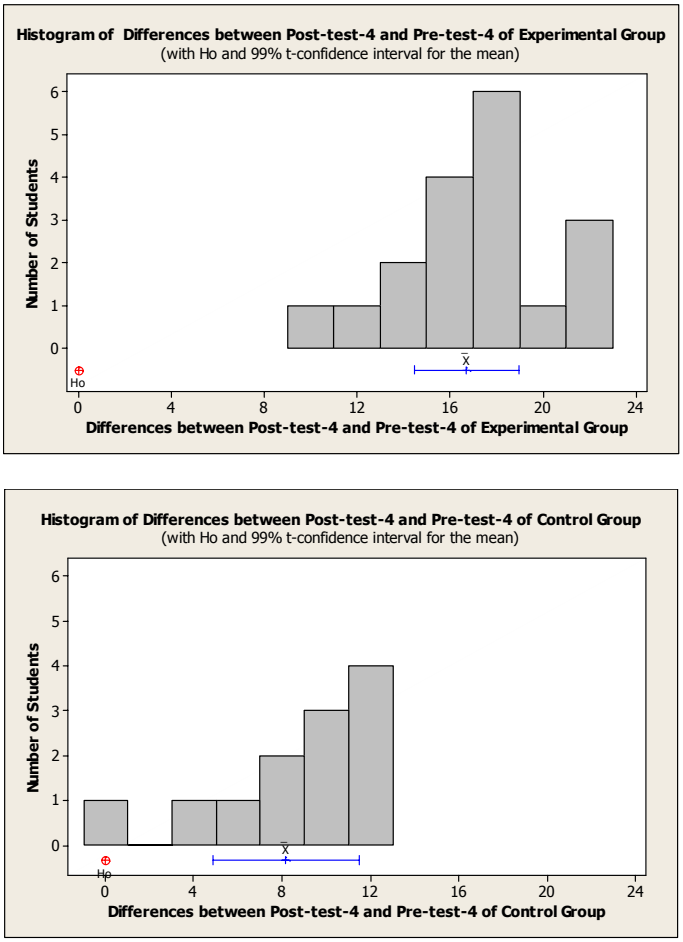

Figure 4.13 The histograms of differences between pre-and post-test 4 for the experimental and control groups

4.3.5 Summary of the Paired *t*-Test Results of Differences between the Pre-and Post-Tests in the Experimental and Control Groups

In Table 4.11, paired *t*-test results of differences between the pre-and post-tests in the groups are displayed cumulatively.

Table 4.11 Paired *t*-test results of differences between the pre- and post-tests in the groups

Group	Test		N	Mean	SD	99% Confidence Interval for Mean Difference		t	p
						Lower Bound	Upper Bound		
Experimental	Test-1 (40 items)	Pre	22	15,18	7,49	15,59	21,86	16,91	0,000
		Post	22	33,91	3,83				
Control	Test-1 (40 items)	Pre	17	12,65	7,04	5,80	12,20	8,22	0,000
		Post	17	21,65	8,02				
Experimental	Test-2 (40 items)	Pre	21	18,76	7,7	11,49	18,89	11,69	0,000
		Post	21	33,95	4,1				
Control	Test-2 (40 items)	Pre	13	17,31	8,76	1,06	9,86	3,79	0,003
		Post	13	22,77	8,97				
Experimental	Test-3 (42 items)	Pre	24	10,46	5,88	21,19	28,89	18,27	0,000
		Post	24	35,5	5,36				
Control	Test-3 (42 items)	Pre	18	7,5	6,17	5,67	14,33	6,7	0,000
		Post	18	17,5	8,71				
Experimental	Test-4 (30 items)	Pre	18	5,06	3,28	14,45	18,99	21,36	0,000
		Post	18	21,78	3,87				
Control	Test-4 (30 items)	Pre	12	7,17	3,88	4,86	11,47	7,67	0,000
		Post	12	15,33	6,67				

4.4. Results of the Post-tests

4.4.1. Results of Differences between Post-test 1 Scores of the Experimental and Control Groups

All the post-tests scores of the experimental and control group students were compared using an independent *t*-test. The mean score of the experimental group was found to be 33,91 (SD: 3,83) whereas it was 21,65 (SD: 8,02) for the control group. The t-value and p-value between the groups were 5,82 and 0,000 (p<0,01, even less than 0,001). Results revealed that the experimental group's scores were highly significant than those of the control group, indicating the positive impact of the Suggestopedic/Reservopedic teaching. The mean differences with 99% confidence interval between the experimental and control groups were 6,29-18,23.

The accounted Cohen's *d* value was found to be 2,09 (>0,8) indicating the strong effect of the intervention on the experimental group.

The values are given in Table 4.12 and the boxplot graphic of post-test 1 scores is shown in Figure 4.14.

Table 4.12 The comparison of the experimental and control group students' post-test 1 scores

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Post-test-1 (40 items)	Experimental	22	33,91	3,83	6,29	18,23	5,82	0,000	2,09 (>0,8)
	Control	17	21,65	8,02					

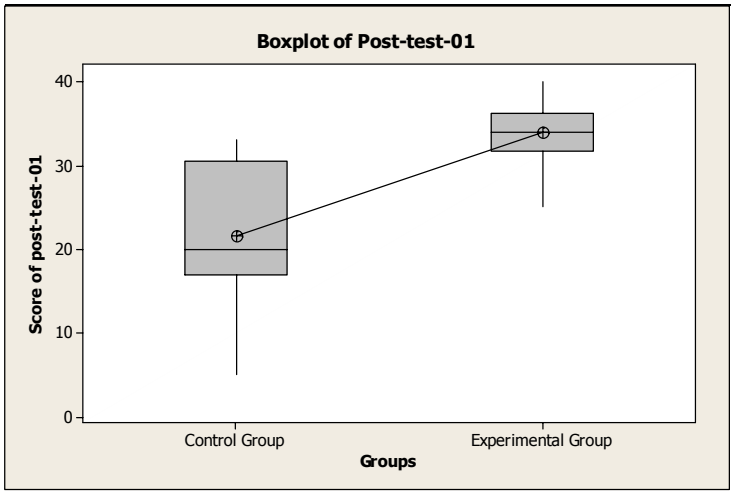

Figure 4.14 The boxplot graphic of the post-test 1 scores

4.4.2. Results of Differences between Post-test 2 Scores of the Experimental and Control Groups

The mean score for the experimental group was 33,95 (SD: 4,1). This score was 22,77 (SD: 8,97) for the control group. The t-value and p-value between the groups were 4,23 and 0,001 ($p<0,01$). The analysis showed that the scores of the experimental group were significantly higher than those of the control group. The mean differences with 99% confidence interval between the experimental and the control groups were 3,39-18,98.

The accounted Cohen's *d* value was found to be 1,81 (>0,8) signifying the strong effect of the intervention on the experimental group.

The values are given in Table 4.13 and the boxplot graphic of post-test 2 scores is shown in Figure 4.15.

Table 4.13 The comparison of the experimental and control group students' post-test 2 scores

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Post-test-2 (40 items)	Experimental	21	33,95	4,1	3,39	18,98	4,23	0,001	1,81 (>0,8)
	Control	13	22,77	8,97					

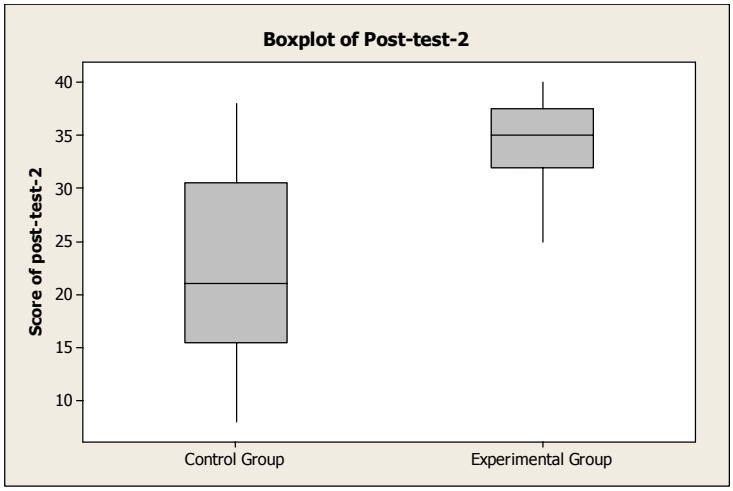

Figure 4.15 The boxplot graphic of the post-test 2 scores

4.4.3. Results of Differences between Post-test 3 Scores of the Experimental and Control Groups

The mean score of the experimental group was found to be 35,5 (SD: 5,36) whereas it was 17,5 (SD: 8,71) for the control group. The t-value and p-value between the groups were 7,74 and 0,000 ($p<0,01$, even less than 0,001). The analysis showed that the students instructed Suggestopedically/Reservopedically scored significantly higher than the students in the control group. Therefore, the assumption was made that the improvement resulted from the use of the Suggestopedic/Reservopedic teaching. Furthermore, the results of this test being significantly higher than those of the other tests could be explained by the relative difficulty of the words given in that week. The

mean differences with 99% confidence interval in the experimental and control groups were 11,54-24,46.

The accounted Cohen's *d* value was 2,64 (>0,8) signifying the strong effect of the intervention on the experimental group.

The values are given in Table 4.14 and the boxplot graphic of post-test 3 scores is displayed in the Figure 4.16.

Table 4.14 The comparison of the experimental and control group students' post-test 3 scores

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Post-test-3 (42 items)	Experimental	24	35,5	5,36	11,54	24,46	7,74	0,000	2,64 (>0,8)
	Control	18	17,5	8,71					

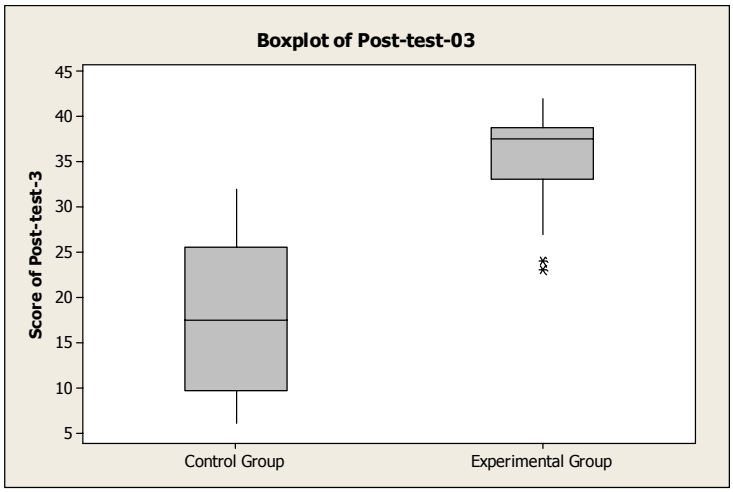

Figure 4.16 The boxplot graphic of the post-test 3 scores

4.4.4. Results of Differences between Post-test 4 Scores of the Experimental and Control Groups

The mean score of the experimental group was 21,78 (SD: 3,87) whereas the mean score of the control group was 15,33 (SD: 6,67). The t-value and p-value between the groups were 3,03 and 0,009 ($p<0,01$). According to the analysis, the scores of the experimental group were found to be more significant than those of the control group signifying the effect of the Suggestopedic/Reservopedic teaching. The mean differences with 99% confidence interval between the experimental and control groups were 0,17-12,72.

The accounted Cohen's *d* value was 1,30 (>0,8), signifying the strong effect of the intervention on the experimental group.

The values are given in Table 4.15 and the boxplot graphic of post-test 4 scores is displayed in Figure 4.17.

Table 4.15 The comparison of the experimental and control group students' post-test 4 scores

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Post-test-4 (30 items)	Experimental	18	21,78	3,87	0,17	12,72	3,03	0,009	1,30 (>0,8)
	Control	12	15,33	6,67					

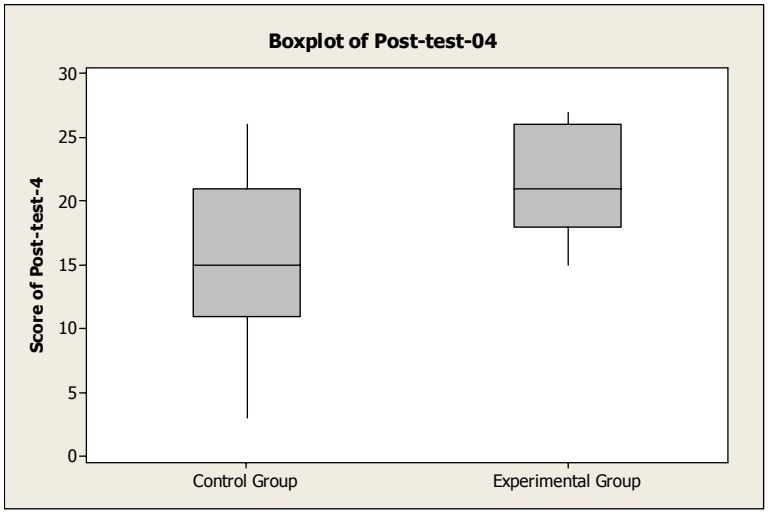

Figure 4.17 The boxplot graphic of the post-test 4 scores

4.5. Results of Differences between the Follow-up Test Scores of the Experimental and Control Groups

In total there were 152 vocabulary items and 43 students participated in this test. The mean score of the experimental group was found to be 128 (SD: 15,4) whereas for the control group it was 78,4 (SD: 30,5). The t-value and p-value between the groups were respectively 6,21 and 0,000 ($p<0,01$, even less than 0,001). The results revealed that the scores of the experimental group were significantly higher than those of the control group. The results also showed that the participants of the experimental group displayed higher long term retention of the words. The mean differences with 99% confidence interval between the experimental and control groups were 27,01-72,29.

The accounted Cohen's *d* value was 2,25 (>0,8) showing the strong effect of the intervention on the experimental group.

The values are given in Table 4.16 and the boxplot graphic of the follow-up test scores is displayed in Figure 4.18.

Table 4.16 The comparison of the experimental and control group students' the follow-up test scores

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Follow-up-test (152 items)	Experimental	26	128	15,4	27,01	72,29	6,21	0,000	2,25 (>0,8)
	Control	17	78,4	30,5					

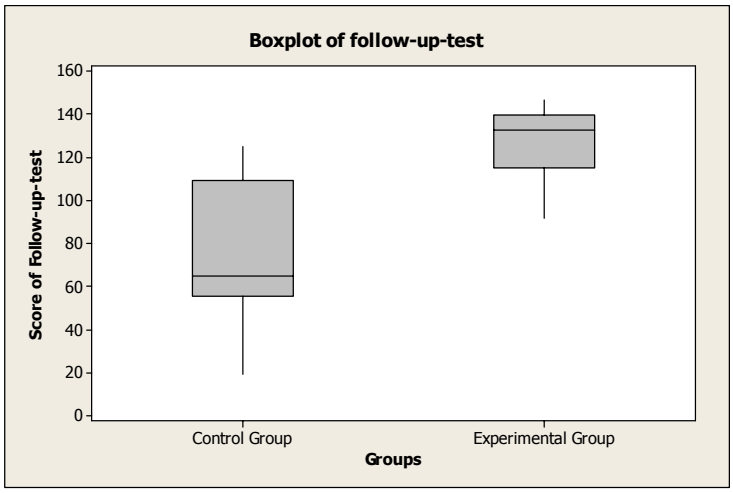

Figure 4.18 The boxplot graphic of the follow-up-test scores

4.6. Summary of the Post Test Results

In Table 4.17 the results of independent *t*-test for the experimental and the control group students' post-tests are displayed cumulatively. The results of the analysis revealed a highly significant difference between the experimental and the control groups' vocabulary level after the experimental group received Suggestopedic/ Reservopedic teaching.

Table 4.17 Independent *t*-test results of the post-tests of the groups

Test	Group	N	Mean	SD	99% Confidence Interval for Mean Difference		t	p	Cohen's d
					Lower Bound	Upper Bound			
Post-test-1 (40 items)	Experimental	22	33,91	3,83	6,29	18,23	5,82	0,000	2,09 (>0,8)
	Control	17	21,65	8,02					
Post-test-2 (40 items)	Experimental	21	33,95	4,1	3,39	18,98	4,23	0,001	1,81 (>0,8)
	Control	13	22,77	8,97					
Post-test-3 (42 items)	Experimental	24	35,5	5,36	11,54	24,46	7,74	0,000	2,64 (>0,8)
	Control	18	17,5	8,71					
Post-test-4 (30 items)	Experimental	18	21,78	3,87	0,17	12,72	3,03	0,009	1,30 (>0,8)
	Control	12	15,33	6,67					
Follow-up-test 152 items)	Experimental	26	128	15,4	27,01	72,29	6,21	0,000	2,25 (>0,8)
	Control	17	78,4	30,5					

CHAPTER V: CONCLUSION

5.1. Introduction

Based on the results presented in detail in the previous chapter, this chapter will first discuss the findings obtained from the data. Second, pedagogical implications of the findings will be discussed. This will be followed by limitations of this study. Finally, suggestions for future research will be provided.

5.2. Findings and Discussions

The main objective of this study was to examine the effects of Suggestopedia/Reservopedia on the vocabulary development of preparatory school students at the university level. In order to see the extent of how much the vocabulary knowledge of students would enhance, this research aimed to adapt and implement instructional materials in accordance with the laws, principles, and means of Suggestopedia/Reservopedia. Despite the fact that the method does not teach vocabulary only, the researcher decided to examine the vocabulary effectiveness of the method in teaching and learning since vocabulary could be easily and objectively measured in large classrooms.

The participants in this study were students in two sections of elementary level English at the AIBU. One class formed the experimental group and the other the control group. The classes were randomly assigned by the administration of the school to the researcher to teach.

The findings of this study have been organized around the following three questions:

Research Question I:

Is there a significant difference between Suggestopedic/Reservopedic and Non-Suggestopedic/Reservopedic teaching in the vocabulary learning of university preparatory school students?

In an attempt to answer this question 4 pre- and 4 post-tests were administered to the students in both groups. The pre-tests were implemented before the instruction

started whereas the post-tests were given at the end of the instruction. Data obtained from the tests were quantified to see whether and to what degree there were differences between the achievements of the experimental and control groups, and the results of the analyses were presented in a comparative manner in tables and graphics together with their interpretations.

The results of the pre-tests showed statistically no meaningful differences between the groups. In other words, the scores obtained from these tests revealed that, on the average, the students in both groups were at the same level at the onset of every new stage of instruction. The post-test results of the groups, on the other hand, revealed that there were statistically meaningful differences between the two groups, that is, the Suggestopedic/Reservopedic group performed significantly higher than those in the control group. The comparison of the post-test scores between the groups was used as the criterion to determine the effectiveness of the Suggestopedic/Reservopedic intervention. For the post-tests 1-2-3 and the follow-up test, the results showed that there were significant differences between the two groups at the 0,001 level ($p \leq 0,001$). For the post-test-4, this difference was at the 0,01 level ($p \leq 0,01$). This might be interpreted with the number of the items asked in this test which was fewer than the other ones.

One important point that is worth mentioning is the outstanding difference between the two groups in the third test. The performance of the experimental group was exceptionally well, and it was predicted that their performance may have been affected by the relative difficulty of the words given in this test. Stated in another way, despite the relative difficulty of the words given in that week, the students in the experimental group showed superior performance with respect to the control group.

Research Question II:

To what extent does the preparation and adaptation of teaching materials according to the principles of Suggestopedia/Reservopedia affect vocabulary learning?

To answer this question the researcher designed instructional materials and implemented them in accordance with the laws, means, and principles of Suggestopedia/Reservopedia. The students in the experimental group scored higher than

those in the control group. Therefore, it might be inferred that the increased improvement of the experimental group resulted from the use of the Suggestopedic/Reservopedic instructional materials and their implementation in the classroom. In other words, the results showed that the instructional materials prepared and delivered in conformity with the laws, principles, and means of Suggestopedia/Reservopedia enhanced students' vocabulary learning significantly.

Research Question III:

Do students remember vocabulary better when they learn English through Suggestopedia/Reservopedia ?

In order to investigate this question, which is about retention of vocabulary in long term memory, the students in both groups were given a follow-up test when the second term began after a 40-day semester break. Once again, the results of the follow-up test produced superior results in favor of the experimental group which was significant at the 0,001 level. In other words, the results of the exit test showed that long term retention of the students in the experimental group was high even after 40 days. In other words, the superior performance of the experimental group in the follow-up test showed that the experimental group remembers the words better than those in the control group.

Furthermore, it was not possible to attribute the improved performance of the experimental group to the rote memorization as the students in this group were observed to have transferred their skills to other language areas as well. The researcher's personal communication with the instructor who conducted the reading-writing classes of the experimental group showed that the students were using the vocabulary taught through Suggestopedia/Reservopedia in their writing as well. The same reading-writing instructor taught the control group, but she did not report the development of such a transfer of skill in this group. It follows from this, then, the experimental group had learned and begun to use the vocabulary words for their personal purposes.

5.3. Final Remarks on the Findings

This study is one of the few informed attempts, based on receiving direct instruction and feedback from the originator of the method, to investigate the effects of

Suggestopedia/Reservopedia in an ordinary foreign language teaching setting. To that end, a regular classroom setting was chosen and the Suggestopedic/Reservopedic instructional materials prepared by the researcher herself were adapted to the curriculum and the authorized coursebook of the institution. During the process of the preparation and implementation of the materials, the researcher respected the Suggestopedic/Reservopedic laws, means, and principles. The high performance of the experimental group signified that the method could be appropriately and effectively applied in normal classroom settings without any need to create special circumstances, and it could still be efficient.

In addition to the increased performance of the students in vocabulary learning, the joyful, stress-free atmosphere resulted from the use of the method led to a high interest level in the students. This, in turn, lessened their anxiety of learning new words. The experimental group students began to believe that it was getting easier to learning new words. More importantly, they began to believe in their abilities. These findings came through when students were asked to write their opinions concerning their learning after the study had finished. One student reported the following:

> There are too many words to learn in the English language. At first, learning words with the accompaniment of classical music seemed strange. Then, I became aware that music with words was easier to learn. The teacher's intonation during the reading was very effective to help memorization. The manner of the presentation of the words could not be compared to the coursebook where the words were put in an alphabetical order to memorize. In addition to teaching vocabulary effectively, this method is also effective in grammar instruction because we can see the structures in sentences in a meaningful, interesting story.

Students' self-reports also revealed that in the first term they got rid of the burden of learning too many words since all the learning took place in the classroom. In the second term during which the investigator stopped teaching Suggestopedically/ Reservopedically, students complained about the burden of learning vocabulary, and often expressed the boredom of the regular instructional routine.

All in all, the experimental group in this study displayed statistically meaningful positive results concerning the effects of Suggestopedia/Reservopedia on

vocabulary learning. The superior results of the experimental students both in the post-tests and the follow-up test indicated to the researcher that the reserve capacities of the students had been tapped. Thus, findings of the present study corroborated Lozanov's claim for the effectiveness of the method as well as his findings concerning high long-term retention of the information. Moreover, the method proved to be effective even in a regular classroom setting.

5.4. Implications of the Study

This section will discuss the pedagogical implications of the method in language learning.

Most often learning a foreign language is perceived as a tedious and a difficult job, and it is thought to entail a lot of diligence, patience, and time on part of the learner. Many language learners strive for learning a foreign language for years, yet they could barely string words together. Additionally, many students do not seem to enjoy the teaching and learning practices in their classrooms or think that they are not capable of accomplishing such a task because it is difficult. The result is students' negative perceptions about language learning and themselves.

Teachers should raise in their students an awareness of their potential, and motivate them to take risks for their learning. In order to do this, they should create positive, non-threatening, stress-free environments for their students. "One cannot take bold and necessary risks unless one believes that the teacher is one's ally" (Tarr, 1995, p. 206). To overcome these problems, one implication for in-service teachers is to be aware of research findings related to the functioning of the human brain to obtain satisfactory results from their teaching. Hart (2002) summarizes the current situation from both students' and teachers' perspectives as follows:

> Teachers in conventional classrooms commonly present lessons logically and sequentially. Not surprisingly, they find that extremely little learning occurs, as revealed by recitation, tests, or homework. Yet teachers cling to such an approach, often feeling inadequate, guilty, and deeply discouraged, suffering what has been fashionable to call "burnout" (p.101).

It is obvious that the role of the teacher is critical because the success of the students depends largely on the knowledge, mastery, and classroom management of the

teacher. A resourceful tool such as Suggestopedia may play a major role in this case. Tarr notes (1995):

> The one and only true magical method does not exist….No matter how beautiful and well-crafted a given wand may be, the magic of the wand lies in the skill, dedication and love of the magician, teacher, artist, or doctor who endows it with magical powers, with life. Similarly, a flute may be a beautiful instrument made of sterling silver or gold, but it truly realizes its intended purpose when the breath of the flute player activates the potential melodies with the instrument. Suggestopedia is the flute awaiting the flute player, the violin awaiting the violinist. (p.42)

In this sense the positive qualities of Suggestopedia/Reservopedia cannot be denied because it offers a positive, joyful environment where the whole brain of the student is activated. Once students learn more, they will become more intrinsically motivated, and teachers' suffering from "burnout" will diminish to a considerable extent.

In Suggestopedia/Reservopedia, not only "what to teach" but also "how to teach" is of utmost importance. In order to achieve maximum effects, teachers should pay attention not only to what they say, but also to how they say it; the message they deliver verbally should be congruent to their nonverbal messages, that is, to their behavior, attitude, body language, tone of voice, facial expression, gestures, and mimics. In this respect, the role of the subconscious mind should not be underestimated. Therefore, the teacher education programs should focus on the role of the subconscious in learning and help teachers to become aware of its power in classroom procedures.

Additionally, findings of this study should encourage teachers and curriculum designers to consider planning instructional materials and activities according to the laws, principles, and means of Suggestopedia/Reservopedia in order to empower their learners. An important point to note is that the laws, principles, and means of the method are interactive and should not be considered in isolation. Simply using activities, role plays, games, sketches, songs, and music cannot be called Suggestopedia/Reservopedia. Teachers should take into account its indispensible laws, principles, and means in order to understand the true nature of Suggestopedia/ Reservopedia.

Furthermore, teaching according to Suggestopedia/Reservopedia requires certain modifications in the curriculum and materials design as it speeds up the teaching of the curriculum. One aspect of the curriculum should be a left and right brain orientation towards teaching. In this model rather than teaching "one at a time", that is, in a linear fashion, students need to be presented with the global first, and then proceed to the partial and to the global again. Therefore, possible limitations of both partial and holistic approaches will probably be eliminated. An important implication of the study is that teachers need to be trained in the method in order to be able to use it correctly and effectively. Finally, it is hoped that the findings reported in this study will provide useful implications not only for the teaching and learning of foreign languages but also for learning in general.

Having discussed the findings and pedagogical implications of the present study so far, limitations of the study and suggestions for further research will be presented in the subsequent section.

5.5. Limitations

This study attempted to focus solely on vocabulary teaching and student learning, using Suggestopedia/Reservopedia. Despite the longitudinal data, the number of subjects was limited in this study. The scope was limited to elementary level students only. The results are promising, but they may not be generalized from the small sample in this study. For future research, the number of participants may be increased.

The class size also formed another limitation for the method to realize its expected potential since Suggestopedia/Reservopedia is considered to be a method which will be more effective in less crowded classes.

Another limitation concerns the fact that the researcher had to teach the authorized coursebook at the institution, follow the curriculum and prepare a large amount of lesson material to teach the lesson Suggestopedically/Reservopedically. Further research may be conducted using Suggestopedic texts only.

5.6. Suggestions for Further Research

The amount of research investigating the effect of Suggestopedia/ Reservopedia on teaching and learning is rather limited. For a better understanding of the practical implications of the method in the field of language teaching, more research is needed. Teachers should be informed about the method through seminars, workshops, conferences, and teacher training courses in order to promote awareness about the method and its true potential. Considering the findings and the limitations of the present study, several suggestions for further research can be made.

Further research studies should go beyond the elementary level, which was studied here and include all other proficiency levels. Future research may also benefit from utilizing multiple methods of data collection, including qualitative methods such as interviews, journals, and videotaping.

The effectiveness of Suggestopedia/Reservopedia in other skill areas such as listening, speaking, reading and writing stand out as very viable areas of future investigation.

Also, further research may explore individual students' attitude toward language learning. In this respect, the effect of the method on all students in general and demotivated and/or weak students in particular may be studied.

The effect of Suggestopedia/Reservopedia on different age groups is also a strong candidate area for further research.

Additional controlled vocabulary learning studies should be undertaken on longer retention rates.

Suggestion, which lies at the heart of Suggestopedia/Reservopedia, seems to be least investigated. Future studies on suggestion and its impact on learners may be investigated.

The difference/s between Suggestopedic/Reservopedic and Non-Suggestopedic/Reservopedic textbooks and the findings of such a comparative study will be received with intellectual curiosity among ELT professionals.

The role of the teacher and the teacher's talk, how the student-teacher communication are different from other teaching methods can be investigated in detail.

The effects of Suggestopedia/Reservopedia on teachers, particularly, the extent to which teachers get mentally ready to change their view of teaching and how differently they begin to perceive their students and their learning may also be investigated.

Finally, besides academic benefits, social, psychological, and physiological benefits of Suggestopedia/Reservopedia may be explored through future research.

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APPENDIX A: WORDS of TESTS

	Words of Test-1	Words of Test-2	Words of Test-3	Words of Test-4
1	wedding	take off	exhibition	jealous
2	harbour	upset	fountain	intension
3	reason	try on	boast	arrogant
4	cover	compare	invade	leisure
5	occasions	temporary	innovation	bilingual
6	cosy	do up	appliance	bossy
7	spare	except	disgusted	modest
8	rare	take back	convincing	proud
9	housewarming	result	hedge	cheerful
10	chocolic	pick up	roomy	excavate
11	property	responsibility	debate	confused
12	predict	continue	stereotype	combine
13	fluent	permit	broadcast	depart
14	conclusion	put on	resemble	inspiration
15	titles	take out	tiny	possibility
16	band	complicated	penalty	citizens
17	genius	get a degree	evacuate	volunteers
18	ridiculous	give up	cottage	identity
19	ordinary	stimulate	statue	community
20	cereals	released	trivial	paralysed
21	takeaway	explore	income	clap
22	bright	representative	currency	satisfied
23	influence	ignore	response	effect
24	accommodation	delay	survey	truant
25	argument	goal	diversity	propose
26	charity	throw away	label	terrified
27	common	useful	isolated	amazing
28	donate	thief	stare	promise

	Words of Test-1	Words of Test-2	Words of Test-3	Words of Test-4
29	impossible	expression	die out	drop out of
30	casual	beat	endangered	embarrassing
31	specialize	rude	related	-
32	famine	repair	pale	-
33	cool	waste	cure	-
34	mood	replace	scenery	-
35	raise	weigh	various	-
36	furnished	ring	affect	-
37	starving	entertainment	solution	-
38	miss a chance	patience	bay	-
39	treat	content	protect	-
40	criminal	add	adopt	-
41	-	-	roar	-
42	-	-	suffer	-

APPENDIX B: FORMULAS for Cohen's *d*

Formula 1: Cohen's $d = \dfrac{\overline{X}_{\exp} - \overline{X}_{c}}{SD_{pooled}}$

Formula 2 : $SD_{pooled} = \sqrt{\dfrac{(N_{\exp} - 1) * SD_{\exp}{}^{2} + (N_{c} - 1) * SD_{c}{}^{2}}{N_{\exp} + N_{c}}}$

$\overline{X}_{\exp}$: Mean score of experimental group

$\overline{X}_{c}$: Mean score of control group

SD_{pooled} : Pooled standard deviation

$SD_{\exp}$: Standard deviation of experimental group

SD_{c} : Standard deviation of control group

$N_{\exp}$: Number of experimental group students

N_{c} : Number of control group students